ICETA 8
The 8th International Conference on Educational Technology of Adi Buana

Education beyond Border: Character-Literacy-Competence

CONFERENCE PROCEEDINGS

Graduate Program
University of PGRI Adi Buana Surabaya
Surabaya, 29 October 2016
The 8th International Conference on Educational Technology of Adi Buana (ICETA 8)
“Education beyond Border: Character-Literacy-Competence”

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FOREWORD FROM EDITOR

The 8th International Conference on Educational Technology of Adi Buana (ICETA-8), the international conference which has been held annually by the Graduate Program of University of PGRI Adi Buana Surabaya. This year’s theme is Education beyond Border: Character-Literacy-Competence. For the main theme for this year’s conference are broken down into sub-themes which are listed from a) human performance technology, b) future education for teacher’s professionalism, c) best practices across fields, c) developing educational orientation in local alues and multicultural society, d) distance learning and blended learning, e) teacher leadership for instructional innovation, f) ethical issues in education, g) barriers to learning, h) character education, i) early childhood education, j) elementary education, k) education of social science, l) environmental education, m) curriculum development, n) delivery systems for lifelong career guidance, assessment, measurement, and evaluation for career development. As the main theme, future education has been continuously brought since the first conference held until the recent conference. Education is acknowledged as key domain in a process of human beings and societies explore their maximum potentials.

There is a great focus for this year’s conference. The great focus is its proceedings as the center of publication for its presenters. First, the quality of the proceedings as a means of publication in this year’s edition is improved. It is aimed at maximizing the value of the publication as the outcome of the conference. As an international proceedings, it is regulated that the language of communication in the proceedings using one of the five languages which are recognized by the United Nation (UN). Hence in ICETA-8 all papers are written in English. It is intended that the proceedings can be as a global publication.

Second, the committee has applied the system for abstract selection of which the criteria is the consistency with the conference’s theme. Reviewers have the right to select the papers based on the abstract that have been submitted to the committee. The suggestions to revise the abstract are sent to the presenters whom abstracts have been selected in line with the conference’s themes. Revision should be made to fulfill the guideline for the appropriate abstracts.

Third, the coverage of the sub-themes for this year’s conference is broadened to certain areas. Bear in mind that the main and solely theme of education is not limited to certain topics. To cope that some additional sub-themes are offered to the conference’s audience to write their research findings into expected academic paper. This year’s papers which are selected to be presented in the conference are less than the previous conferences in numbers. There are than 60 papers will be presented in three modes of presentation; parallel, roundtable, and poster presentation. The number of paper
presented show stability in the number of presenters and participants. They are from various educational institutions. The number of papers presented in the conference is indicating that ICETA-8 is the forum to publish research findings. Therefore, as an annually held international conference, ICETA-8 is entrusted to be academic forum to share thoughts, reflections, experiences related to academic works for teachers, lecturers, researchers, educators who continuously write, present, and publish their academic works.

Finally, we would like deliver great appreciation to the organizers, presenters, writers, and all parties who have been contributing directly and indirectly to the publication of the proceedings.

Surabaya, October 2016

The Editor
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The author starts comparative research on career development between Japanese university students and Indonesian ones by the assistance of Universitas PGRI Adhi Buana Surabaya this November. To make the social back ground of Japan clear, this paper explores the history of the Japanese employment system and university education to develop students’ generic skill, competencies, knowledge, experiences and so on. It is written by correcting and revising the paper, Transition from School to Work of University Students in the Japanese Context (Banda, 2015), by the author.

1. University Graduate Employment Practices in Japan

Western organizations operate on the job model, whereas Japan is based on the membership model (Hamaguchi, 2014). In Western countries there is a stronger relationship between one’s undergraduate field of study and job content than in Japan. Ordinarily in Japan there is no connection between a person’s undergraduate major and the content of his or her first job (Koyama, 2014). Japanese companies do not explicitly specify a position when they employ new graduates. Since companies bind their workers to comprehensive employment contracts, employees recognize they are members of the organization (Koyama, 2014). Instead of viewing job searching as an act of seeking employment, it is more contextually resonant to view it as membership hunting in Japan.

1.1. Simultaneous Recruiting of New Graduates

Now in Japan there is no guarantee of employment until retirement, and firms are reducing the training costs of new employees. However, one system that is still in operation since before the war is simultaneous recruiting of new graduates. As reported by the OECD (2009), compared to other countries in the OECD, in the Japanese labour market, a majority of young people after graduation from university, immediately enter the labour market as regular employees, which provided a stable work-style. Graduation ceremonies are held in March. Most university graduates enter the work force by April. This employment of university graduates is usually a lump-sum hire, a term used to describe the practice of hiring individuals for the firm, but not for a particular job within the firm. These individuals are not assigned to specific jobs, but tend to move from one job to another within the firm (Mitani, 1999). Figure 1 shows a typical Japanese career development system especially in a big firm, as compared to career development in the West.
According to Mitani (1999), the lump-sum hiring of new graduates is thought to have several economic advantages. First, it reduces the costs of personnel management, such as promotion or wage management of individual workers, because those hired in the same year can be treated collectively. Second, it reduces training costs because firms can train all new employees at the same time. In addition, because newly hired graduates are not attached to specific jobs, training is facilitated by using broad On the Job Training (OJT), which is based on the movement of workers between various related jobs.

1.2. New Graduates’ leaving jobs

Even though they could be hired as regular employees, the early job-leaving rate after three years of working has climbed to about 30%. The primary causes for this are the working conditions such as stressful working environment, long work hours and too few holidays. According to a report of the MHLW (2010), industries in which the high rate of new graduates’ leaving jobs are shown are accommodation and food services, amusement and recreation services, real estate, medical care and welfare services, and education and learning services.

2. University Graduates in Needs

As previously stated, in many cases there is no connection between new graduates’ undergraduate majors and their first jobs. Exceptions to this are graduates with degrees in technical fields such as medical science, pharmacy, chemistry, engineering, and such occupational areas. Most new graduates are expected to be generalists, not specialists. In order to raise skilled generalists, firms attach importance to enthusiasm as well as high literacy when hiring new graduates. To identify this potential, firms consider university rank as the most important marker when screening candidates. This is the *modus operandi* in large firms. Students in highly ranked universities routinely desire to work in large firms.
2.1. Increasing University Enrolment
In spite of Japan’s declining birth rate, university enrolment almost doubled from 24.6% in 1990 to 56.1% in 2011 (Nishikawa, 2013). This change reflects the features of university entrance examinations. The purpose of these examinations is to select students with a high level of basic knowledge and educational potential. However, Arai (2005) points out that the entrance exams are changing from selection-based tests to aptitude tests that screen out only a small amounts of applicants who are obviously unacceptable. As the academic levels of universities in Japan are wide-ranged, most applicants, including those who have demonstrated low academic potential, are able to enter a university if they choose a university suitable for their academic ability.

2.2. New Competencies
Japanese firms consider new graduates as effective human resources with high potential to be trained. However, the current economic situation and globalization prevent firms from investing in new graduates by providing On the Job Training (OJT), because of financial costs. Now, new graduates are expected to develop their skills and abilities before entering the firms. Since the late 1990s, the Japanese government has listed desired abilities and competencies. Regarding higher education, the Ministry of Economy, Trade and Industry, Japan (METI) (2006) has set out the description of Fundamental Competencies for Working Persons (see Figure 2) and the Ministry of Education, Culture, Sports, Science and Technology, Japan (MEXT) (2008), described the Abilities of Bachelor’s Degree Holders and Working Abilities, which define the abilities and competencies to suit globalized society.
In many cases Japanese firms expect new graduates to have already acquired generic and basic skills rather than professional skills or knowledge. Thus, the ability profile of bachelor degree holders should contain generic communication skills, quantitative skills, information literacy, logical thinking skills, and problem solving skills. In a globalized society, these skills are the key to providing an education that would help young people to find their own career development answers (Matsushita, 2014).

3. Education in the university

The 1999 Central Education Council designated the necessity of career education in higher education. In 2003 the MEXT started to support the reforming of university education which included support for career guidance. In 2010 the MEXT modified the Standard for Establishment of Universities. It now stated that it is necessary for the university to guide students to acquire employability for achieving social and occupational self-reliance by seeking organic collaboration between various organizations within universities. In addition, it mentioned that career guidance should be provided through the regular curriculum as well as through extracurricular subjects (Uenishi, 2014). This modification encouraged universities to change their educational curriculum, and each university began improving its curriculum, drawing upon the principles of active learning, such as project-based learning and experiential learning.
3.1. Educational Reform

The 2012 Central Council for Education Report (advocating qualitative transformation of university education) recommended active learning to develop students’ generic skills and competencies as well as knowledge. Mizokami (in press) defines active learning as follo
It is an educational reform which suggests a paradigm shift from teaching to learning; from teacher centered lecture to student centered active learning. Teachers are required not only to provide knowledge but also to develop students’ cognitive abilities for adapting to a changing society. Large numbers of universities are now trying to improve professors’ and lecturers’ teaching abilities by holding faculty development workshops. Enthusiastic teachers are promoting their teaching skills to motivate the students to gain the learning hours out of the class, which encourages achieving deep learning outcomes.

3.2. New institution of higher education

The 2014 Central Council for Education Report also indicated that the professional training institutions should be set up as universities. In the near future more and more workers in the specialized technical fields and service fields of welfare, tourism, ITC and human resources will be needed. In order to promote the smooth shift of work forces to growing industries, the expected human resources, who work at the frontiers and play a central role to advance new projects or expand the projects to overseas, should be raised. It also mentions collecting excellent foreign work forces. Not only existing universities where liberal arts and academic education are provided to raise the general administrators and specialists, but also new universities where technical vocational education is provided to raise practical professionals are considered to be set up. (See Figure. 3)

![Figure 3. Function of each higher educational institution (MEXT, 2014) modified by the author](image)

CONCLUSION

Higher education in Japan is in the midst of reformation. To make a bright society in the future, students are expected to discover unsolved issues, to obtain specialized knowledge and general skills, and to think in order to arrive at the best solution. The effective solution to develop such required human resources might be a paradigm shift from passive learning to active learning. At the same time, the new idea of establishing professional universities would increase the option of students’ future careers and the graduates would be expected to be leaders in the industries.

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REFERENCES


THE PARTICIPATION OF RESIDENTS OF TAMBAK REJO VILLAGE, SIDOARJO, IN THE 2014 PRESIDENTIAL ELECTIONS SEEN FROM EDUCATION LEVELS AND OCCUPATION

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ABSTRACT
Citizens are obliged to foster and protect ethics in politics. In order to move the nation forward, roles and activeness of all parties are needed, between citizens and the government. As citizens of Indonesia, participation in deciding the direction of the nation is seen from the use of the right to vote for a president, done every five years. This researched aimed to understand the participation of citizens of Tambak Rejo Village, Sidoarjo, in the 2014 Presidential Elections, seen from education levels and occupation. The research type is a descriptive research with a qualitative approach. The targets of the research were public figures (formal and non-formal), youths, original residents, and newcomers of Tambak Rejo Village, Sidoarjo. The data collection techniques used were in-depth interviews, direct observation, and recording documents. Data that was collected were analyzed using the interactive analysis technique. The result was, first, the participation of the citizens of Tambak Rejo Village, Sidoarjo, in the 2014 Presidential Elections could be seen from educational levels (most of those that participated in the elections had an educational background up to high school, diploma education, and undergraduate education). Second, the participation of the citizens of Tambak Rejo Village, Sidoarjo, in the 2014 Presidential Elections could be seen from occupation (most of those that participated in the elections had a background of entrepreneurial occupations). Evaluation of participation showed that the involvement of citizens to make democracy successful as during the 2014 Presidential Elections had good progress, as there were no riots when the citizens exercised their voting rights at the local polling places.

Keywords: participation, 2014 Presidential Elections, education, occupation

INTRODUCTION
The right to freedom of all individuals is protected by the state, but the procurement and use of those rights are adjusted accordingly with the surrounding people. As political individuals, citizens have duties such as loyalty to the state, adherence to political norms that have been collectively agreed upon, and obedience toward political methods and etiquette in expressing aspirations by using the right to vote in a responsible manner (Abdurrahmat Fathoni, 2006).

The responsible right to vote represents a process of formation of the character of the nation or Indonesian people which places democracy as a central point in citizenship and statehood. Democratic education has three primary functions: to develop civic intelligence, to guide civic responsibility, and to encourage civic participation.

All citizens have the obligation to foster and protect ethics in politics. In this case, to develop the nation further, the role and activity of all parties are required, between the citizens and the government. A democratic society can be realized if the people are educated, are intelligent, possess a sufficient (decent) livelihood, and possess the will to participate actively in society, citizenship, and statehood. As a citizen of Indonesia, the participation in guiding the direction of the nation can be seen in the use of the right to vote for the leader of the nation – the President – every five years.
According to Milbrath, the political participation of the people in exercising democracy is related to four factors: how far people accept political stimuli, the personal characteristics of a person, the social characteristics of a person, and the political state or political environment where the person is situated (Lester Milbrath, 1965).

The process of leadership change or presidential succession in 2014 represented the peak of the exercise of democracy once every five years in electing the national leader of Indonesia. The role and participation of the people very much determines where the nation is headed. All citizens were enthusiastic about the 2014 presidential elections, and the people of Tambak Rejo village, Sidoarjo, who represented a diverse society in education and occupation, was no exception.

METHOD

The research method was a field study conducted by examining the available data. The research could be categorized as a descriptive qualitative research. This means that the research produced descriptive data on verbal as well as written expressions, as well as the observed behaviors from the people being researched (Taylor and Bogdan, 1984). This descriptive qualitative research aimed to describe accurately the natures of a certain individual, state, condition, or group, or to determine the spread of a condition, or to determine whether or not there is a relationship between a condition and another condition in society (Amiruddin and Zainal Asikin, 2010).

DISCUSSION

Tambak Rejo Village, Sidoarjo Regency, has an area of 383 hectares, and consists of low-lying or coastal lands incorporated as one of 14 Villages in the region of Waru Sub-District that lies north-east of the City of Sidoarjo, sharing a border with the southern part of the City of Surabaya.

The number of residents based on their occupation and the number of residents based on education levels are presented in the following tables:

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<th>Occupation</th>
<th>Female</th>
<th>Male</th>
</tr>
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<tr>
<td>Unknown</td>
<td>3036</td>
<td>1947</td>
</tr>
<tr>
<td>Housewives</td>
<td>1021</td>
<td>2</td>
</tr>
<tr>
<td>School/College Students</td>
<td>1764</td>
<td>1940</td>
</tr>
<tr>
<td>Retirees</td>
<td>51</td>
<td>209</td>
</tr>
<tr>
<td>Civil Servants</td>
<td>114</td>
<td>116</td>
</tr>
<tr>
<td>Military Officers</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>Police Officers</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Traders</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td>Agricultural Farmers</td>
<td>34</td>
<td>43</td>
</tr>
<tr>
<td>Animal Farmers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fishers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Industrial Workers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Construction Workers</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Transportation Workers</td>
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<td>Honorary Workers</td>
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<tr>
<td>Occupation</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----</td>
<td>-------</td>
</tr>
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<td>Haircutters</td>
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<tr>
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<td>4</td>
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<tr>
<td>Stonemasons</td>
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<td>19</td>
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<tr>
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</tr>
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<tr>
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<td>1</td>
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<tr>
<td>Dental Specialists</td>
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<tr>
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<td>1</td>
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<tr>
<td>Fashion Specialists</td>
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</tr>
<tr>
<td>Hairstyle Specialists</td>
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<td>0</td>
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<tr>
<td>Mechanic</td>
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<tr>
<td>Artists</td>
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<td>0</td>
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<tr>
<td>Healers</td>
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<td>0</td>
</tr>
<tr>
<td>Midwives</td>
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<td>0</td>
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<tr>
<td>Designers</td>
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<td>0</td>
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<tr>
<td>Translators</td>
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<td>Mosque Imams</td>
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<tr>
<td>Priests</td>
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<td>Pastors</td>
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<tr>
<td>Reporters</td>
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<td>1</td>
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<tr>
<td>Islamic Teachers</td>
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<tr>
<td>Chefs</td>
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<tr>
<td>Event Promoters</td>
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<td>0</td>
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<td>National Parliament Members</td>
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</tr>
<tr>
<td>Senate Members</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Financial Supervisory Board Members</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>President</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vice President</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Constitutional Court Members</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cabinet Members</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ambassadors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Governors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vice Governors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Regents</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vice Regents</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mayors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vice Mayors</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Regional Parliament Members</td>
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<tr>
<td>Regency Parliament Members</td>
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<tr>
<td>Lecturers</td>
<td>19</td>
<td>30</td>
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<tr>
<td>Teachers</td>
<td>110</td>
<td>37</td>
</tr>
<tr>
<td>Pilots</td>
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<td>0</td>
</tr>
<tr>
<td>Attorneys</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Notaries</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Architects</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accountants</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Consultants</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Doctors</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Obstetricians</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Nurses</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Apothecaries</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Based on the above details and the results of several questionnaires on residents, seen from the point of view of occupation, entrepreneurs were the most dominant in Tambak Rejo Village participating in the 2014 presidential elections.

Based on the above details and the results of several questionnaires on residents, seen from the point of view of education levels, most voters of Joko Widodo and Jusuf Kalla were of middle school, high school, diploma, and undergraduate education (most were of high school education). Meanwhile, voters of Prabowo Subianto and Hatta Rajasa were spread among elementary school, middle school, high school, diploma, undergraduate, and graduate education (most were of diploma and undergraduate education).

The participation of residents in choosing or determining candidates for the head of state of Indonesia can be seen in the data for valid and invalid votes below:

### Data of Valid and Invalid Votes

**Participation of the people was rated at 99.99%.
This participation rate is considered very high.**

<table>
<thead>
<tr>
<th>Votes</th>
<th>Number of Votes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Valid Votes</td>
<td>7,713</td>
<td>7,713</td>
</tr>
<tr>
<td>Number of Invalid Votes</td>
<td>76</td>
<td>76</td>
</tr>
</tbody>
</table>

**Total Number of Votes**: 7,789

---

**Table 1. Number of Residents Based on Occupation**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV Broadcasters</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Radio Broadcasters</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sailors</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Researchers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drivers</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Brokers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Paranormal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Merchants</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Village Officials</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Village Chiefs</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Nuns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Entrepreneurs</td>
<td>252</td>
<td>423</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

**Table 2. Number of Residents Based on Education Levels**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td>2109</td>
<td>1889</td>
</tr>
<tr>
<td>Middle School</td>
<td>1412</td>
<td>1281</td>
</tr>
<tr>
<td>High School</td>
<td>2857</td>
<td>3226</td>
</tr>
<tr>
<td>1- and 2-Year Diploma Programs</td>
<td>46</td>
<td>21</td>
</tr>
<tr>
<td>3-Year Diploma Program</td>
<td>212</td>
<td>162</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>1085</td>
<td>1187</td>
</tr>
<tr>
<td>Graduate</td>
<td>54</td>
<td>76</td>
</tr>
<tr>
<td>Doctorate</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Lain-lain</td>
<td>1502</td>
<td>1489</td>
</tr>
</tbody>
</table>

---

The 8th International Conference on Educational Technology of Adi Buana (ICETA 8)
The results of evaluation for the participation of Tambak Rejo Village residents, Sidoarjo, in the 2014 presidential elections and empirical research showed that the involvement of residents in exercising their democratic rights in the 2014 presidential elections represented good progress, as there were no riots while the people voted at the local polling stations. Below are the vote counts for the 2014 presidential elections at Tambak Rejo Village, Sidoarjo.

**Vote Counts in the 2014 Presidential Election**

**Participation of the people that voted for the winner was 61.89%. This participation rate is considered very high.**

<table>
<thead>
<tr>
<th>PRESIDENT-VICE PRESIDENT</th>
<th>Total Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. PRABOWO SUBIANTO and Ir. H. M. HATTA RAJASA</td>
<td>2,939</td>
<td>38.1</td>
</tr>
<tr>
<td>Ir. H. JOKO WIDODO and Drs. H. M. JUSUF KALLA</td>
<td>4,774</td>
<td>61.89</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>7,713</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4. Vote Counts in the 2014 Presidential Election

The Joko Widodo and Jusuf Kalla ticket won the presidential election at Tambak Rejo Village, Sidoarjo, with a total of 4,774. The Prabowo Subianto and Hatta Rajasa ticket obtained a total of 2,939 votes. The total number of valid votes for the presidential candidates was 7,713. Those who did not use their voting rights amounted to 76, which amounted to a percentage of 0.01%.

Voters of Joko Widodo and Jusuf Kalla supported the parties of the Great Indonesia Coalition (PDIP and PKB for Tambak Rejo Village). Voters of Prabowo Subianto and Hatta Rajasa supported the parties of the Red and White Coalition, in particular Gerindra and PKS. Those who did not vote supported other parties for various reasons.

Interestingly, there was consistency between those that supported coalition parties with their political choices. This meant that those who voted for Joko Widodo and Jusuf Kalla were of the Great Indonesia Coalition parties, while those who voted for Prabowo Subianto and Hatta Rajasa were of the Red and White Coalition parties.

**CONCLUSION AND SUGGESTIONS**

**Conclusion**

The presidential election is the pinnacle of leadership succession for organizing the country. In the 2014 presidential elections, it can be seen that citizens of Indonesia were able to conduct elections in a peaceful and intelligent manner. With this in mind, it was important to see how well the citizens participated, one way of which was to recognize the makeup of the participation in the 2014 presidential elections of the residents of Tambak Rejo Village, Sidoarjo, based on education levels and occupation.

**Suggestions**

Based on the results of the research some suggestions can be made: (1) the government of Indonesia, in relation to the high enthusiasm of the people in exercising their democratic rights as in the 2014 presidential elections, should properly and continuously maintain the trust of the people by socializing political matters well; (2) the citizens should exercise their political rights intelligently by picking the right candidate, as the voice of the people is the voice of God (vox populi vox dei).
REFERENCES
Rekapitulasi Data Komisi Pemilihan Umum Daerah Sidoarjo
Data Statistik Desa Tambak Rejo.

Author's Biodata

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Irnavati is lecturer Pancasila and Citizenship Education, at the University of Surabaya Adi Buana. Received a Master of Law degree at Brawijaya University. Taught courses related to discipline, including Islamic Law and PIH.
ABSTRACT

In this study will obviously assess learning model blended learning by using strategies problem-based learning, so expect faculty and students can do a collaboration without a limited time in the learning process in the classroom (tutorials face to face) and can motivate students to improve understanding of the material and improvement of learning outcomes independently or in groups. This study was designed to develop learning model blended-based learning problem-based learning to improve learning outcomes Teaching and Learning students S1 Adi Buana University PGRI Surabaya. This study will take place over two stages, namely in 2016-2017. This study aims to assist students in obtaining increased yield learning courses Teaching and Learning. This study aims to determine the effectiveness and appeal of learning model blended learning to improve student results. This research will be conducted on students of S1 FKIP Adi Buana University PGRI Surabaya force 2016/2017. To achieve the objectives of this study, the implementation of the research was designed in two phases. The first stage, carried out an analysis of the implementation of the previous learning process using conventional approaches. From the results of a survey conducted to be seen how the acquisition of student results. At this stage it will also be disseminated questionnaires about what has enthused the students used student in communicating with faculty, will also be developed to guide the learning process blended models based learning problem-based learning strategies to gain increased learning outcomes. Items will be obtained in this stage is a learning model blended learning, guidance on the implementation of the learning process blended learning for faculty and students. The second phase, will be conducted experiments blended learning the learning process of the products which have been obtained in the first stage, this stage is the stage of proof of learning model learning-oriented blended tested the effectiveness, efficiency and attractiveness of learning blended guide the learning process.

Keywords: Model blended Learning, Problem-Based Learning, Learning Outcomes

INTRODUCTION

The main obstacle faced by students in the learning process is the lack of communication between students and professors were only done during face to face meetings as well as the lack of clues to how the learning process should be conducted. The learning process has been done, only relying on the conventional learning process is limited to communication during face to face meetings. The period ahead should the learning process can already be supported by learning more open, meaning that the learning process is no longer with communications that are simply face to face in the classroom, but can be done outside the classroom, opinions Bukhopayhyay (1995) revealed that the tendency of a paradigm shift in the world education of the conventional face to face education toward a more open. The learning process is also not supposed to do in any situation or condition and dibatas class confined by four walls and kommunikasi made at the face alone, but should be done after the process of learning and communicating more openly. In line with this case Uno (2001) advocated that education should be supple (flexible), open and accessible to anyone who needs it. Education should already be able to switch on the network, which enables information to interact and collaborate, not
oriented in the classroom / building. No less important that before designing learning, lecturers should also consider the characteristics of the students. Characteristics to consider are (1) motivation to learn, (2) access to learning resources, (3) the habit of independent study and discipline in managing time learning, (4) access to communication channels and media information technology, (5) the habits and skills learning and thinking about the application of the material learned in your work or daily life, and (6) domicile when measured by the distance to the center of the learning activities.

Student disinterest in conventional learning process, because of the limited process of interaction between faculty and students do in the classroom. To solve the problems in the learning process as students find it difficult or assistance in completing tasks outside of the classroom is certainly an issue and one of the obstacles to improve learning results. The process of communication or interaction between faculty and students would be facilitated with online such as telephone, sms, e-mail, blackberry, facebook, messenger, Whatsapp, WeChat, twitter, and Kakao Talk has evolved over the years. Linkages to learning which gives freedom to the students to be able to dig up the information she wants can not be separated from the development of information and technology, namely the Internet world.

The learning model banded learning facilities learning process that is both a tutorial-face and online tutorials that can be used to conduct consultations learning problems, assignments, feedback, testing, remediation for students, and creating service activities interactively between faculty and students and between students and group in the enrichment of teaching materials for the benefit of the course. This learning model also developed a learning strategy problem-based learning that is meant to bring students on authentic problems in the field. The use of learning strategy is not right, do not involve students actively, and watch will affect the progress of learning. Low student results may be implicated in the decline in the quality control of the material that must be mastered.

The process of conventional learning that took place in UNIPA Surabaya lot of focus on the role of lecturers as a speaker as the only source without being followed by strategies that clear, students are placed as a listener and a little time for the process of interaction with a place to learn the monotony facing lecturers, materials delivered only revolves around the theory with a few examples without involving students face the authentic events, and kolabarasi / communication between faculty and students that took place during a meeting in the class is limited and restricted to the working group on completion monotonous tasks in groups. In the process of learning that developed the model banded-based learning problem-based learning strategies, giving priority to the issues authentically warm again about the world of education and the learning model this learning process tutorial mukan face and online tutorials. In the tutorial to-face student learning process by relaxing the conditions that followed the seating arrangement in accordance with the convenience of students according to their learning group, in collaboration with the lecturer. Lecturer as a facilitator only facilitate students in learning to treat the matter as a reinforcement of what is produced by students in completing their tasks independently or in groups. In an online tutorial, students are given the opportunity to do a collaboration / communication with professors after class learning process is completed. In collaboration / communication, faculty attention to the characteristics, namely attention to what is used students in berkolaborasi / communication means lecturers serve corroboration of what has interested him / mastered in a virtual world such as telephone, SMS, e-mail, facebook, twitter, WeChat, WhatsApp, Messenger and KakaoTalk. Thus, in this learning process will be an opportunity for students to be able to improve your skills, mastery in improving academic achievement. Several studies have been conducted with regard to the use of online learning has been widely demonstrated, as was done Cotton (1991) who has conducted studies on the rocky learning computer obtained that computer assisted learning increase the acquisition of learning outcomes are high. Teaching materials are packaged in the form of a core section that suggests the problem-permasalau authentic in the field, it is intended to trigger motivation of students to find / solve problems-problems independently and the group with the resources that students wills. In understanding the teaching material students are also equipped with the user in performing the learning process of learning scenarios in addition to the lecturer.
In this study will obviously assess learning model blended learning by using strategies problem-based learning, so expect faculty and students can do a collaboration without a limited time in the learning process in the classroom (tutorials face to face) and can motivate students to improve understanding of the material and improvement of learning outcomes independently or in groups. The development of this model is very important, because it will be able to lead students on authentic problems in the field so that the students will also be able to understand these issues critically and adapt to the situation up to date.

As good as any learning model developed without being followed by the delivery strategy in a good learning process, will not work effectively in achieving the learning objectives. The learning model of blended learning is a form of learning model that serves learning-face (face-to-face tutorials) and online tutorials, so that the model of blended learning will be able to make the learning process directly face to face also with online. The development of technology and rapid communications, today there are more applications and communications technologies that enable the creation of learning environments that can accommodate the gap between faculty and students collaborating online. Blended Learning can not be separated from matters relating to the Internet network that has become the need of lecturers and students, is very helpful in the learning process in which there are many many learning resources and electronic services that have been developed in the virtual world is called e-learning. Blended Learning is the development of e-learning methods that can be said that this form of learning processes that combine conventional method face to face with e-learning.

From some of these opinions, blended learning is more about the merger / unification conventional learning methods (face-to-face) with an e-Learning. With this approach, the blended learning combines a variety of teaching methods by utilizing technology and adjust the conditions agreed by all parties. While existing online technology can be utilized for blended learning process. Utilization online as a learning medium has several advantages: (1) possible occurrence of the distribution of education all of corners and power capacity tamping not limited to the classroom, (2) the learning process is timeless as well as face to face, (3) pebelajaran can memilikih topic or teaching materials according to keinginan and needs of each, (4) the length of time depends on the individual learner, (5) the accuracy and contemporary learning materials, and (6) the learning can be performed interactively, thus attracting learners and allow interested parties as parents of learners can also control tasks done online learners (Rusman, 2011).

The concept of learning can not only help students to learn, but more than that how effective the learning process can take place the emphasis on learning as a process with the personal learning strategies that can accommodate a variety of contexts, the contents of which should be taught. Of course, in this process students will be able to build their own knowledge and personal experience. In designing strategies in learning there are some elements or components that must be considered. Elements or components that are presented by the designer can be modified or developed in accordance with the needs of what will be delivered. Elements of a learning strategy in this regard include: The general objective of learning to be achieved, a technique or a way to achieve the common goal, the organization of activities in learning, learning events relating to stages in implementing the learning process with the steps: a) Preparation of (luring attention, arouse interest, mengiformasikan purposes), b) Presentation (stimulates memories of previous instruction, Presenting new stimuli, guiding understanding, train control, giving feedback), c) Stabilization (assess mastery and provide reinforcement), d) the order of learning that includes stages of learning content to be easily understood, e) Valuation basis and tools (instruments) used to measure the ability, f) Management learn about how learning organized (in this case the pattern used is a pattern of interactive media), g) place or background ie environments where learning will take place, and h) time takes place in the learning process.

The exposure of learning strategies in its use to the purpose of learning that will take place, meaning that not all are suitable for use learning strategies to achieve the goals and all circumstances. Each strategy used will certainly have their advantages and disadvantages as well as having traits / characteristics of their own. Peterson (2004), this method gives learners the problems that are not well structured and problem-solving that is not one just because it
focuses on learning (self-learning) and very far from the explanations directly to the core / answers / content and or explanations given directly by learners. When the researchers examined of the opinion that the lecturers in problem-based learning should be preceded by thrusting problematic situations on learners and ordered students to investigate and find their own solutions either individually or in collaboration with a small group. In this same study, researchers used a syntax problem-based learning that is adopted from Arends which includes five phases of learning.

**METHOD**

This study was designed to develop learning model blended-based learning problem-based learning to improve learning outcomes Teaching and Learning students S1 Adi Buana University PGRI Surabaya. This study will take place over two stages, namely in 2016-2017. The first stage (2016) conducted a survey on the learning process which has been taking place in terms of motivation to learn, form of collaboration / communication faculty-student, learning how to solve problems, and independence in the learning process. Next will be the preparation stage of development of research instruments, learning scenarios, guides faculty and students, teaching materials, and evaluation.

**Stage Introduction**

The preliminary study stage conduct a survey on the implementation of the learning process that is held with the view of motivation to learn, form of collaboration / communication between faculty and students, how to solve the problem of learning and independent learning of students in the learning process at S1 students UNIPA Surabaya. The next step in draft planning analysis and design studies on the development of blended learning models and strategies for problem-based learning with a review of literature, journals, colleagues, and expert content and design.

**Stage of Development**

This development phase, arrangement of instruments on assessment questionnaire and a questionnaire to students of expert content and design experts as well as a questionnaire to students about the implementation process of learning and collaboration / communication which has been used between lecturers and students. Draft products include:

a. **Model Blended Learning**
   
   In this model will be structured tool for communication in this online tutorial is done by a needs analysis to students about what they have learned or his favorite communication. In analyzing this need to ask about what is it used for communication with tutors as e-mail, phone, sms, facebook, Blackberry, WhatsApp, Twitter, WeChat, or Messenger.

b. **Teaching Material**
   
   Teaching materials and problematic selekta capita education briefly arranged and oriented learning problem-based learning strategies. It is intended to motivate and lead to trigger students to be able to supplement and enrich the material. Teaching materials are also equipped with a task / problem-oriented evaluation of authenticity.

c. **Hint Implementation of Learning Process**
   
   Instructions in question is a specification of how the procedure to follow tutorial lectures either face to face or online tutorials. In this supplement also contains the program tutorial meetings with subject matter oriented teaching materials.

d. **Skenario Learning**
   
   The scenarios will be based on the steps of the learning problem-based learning strategies. This scenario will be a guide for every lecturer in implementing the learning process.

e. **Instrumen Evaluation**
   
   Evaluation instrument is intended to determine the quality of teaching materials, instructions, and test learning scenarios by experts, small group test, and test a larger group. Of the test is expected to reach perfection design (hypothetical model) that will be tested in a large group / actual.
RESULTS AND DISCUSSION

From the results of a survey questionnaire distributed to the students to do penyepadanan, the importance of the findings that, in the implementation of the learning process, a lecturer in conducting the learning process is dominated by the methods of lecture, discussion, question and answer, giving tasks. Meanwhile, after the process takes place in the classroom, if students complete the task and there is not understandable on matters relating to the settlement, the lack of communication between students and professors means only done face to face meetings in a classroom environment.

Smartphone Apps

The questionnaire results obtained from the student, that the application of cell phones that students have for the purposes of communication is e-mail, phone, sms, facebook, Blackberry, WhatsApp, Twitter, Instagram and Messenger. This means that a student far has followed the development of mobile technology for the sake of communication. Thus in the implementation of the learning process of the research can be used in various ways and according to what students interested in of communicating between faculty and students, students with a student, the student group. This means that during the learning process with an online tutorial activities as communication facilities to do with the application.

Learning Media

Learning device is based on surveys and questionnaires that have been distributed. The device in the form of guidelines for lecturers in teaching, learning design banded-based learning problem-based learning, test instruments, rubrics, instrument validity, and questionnaires teaching materials. This learning tool will be validated and tested for feasibility before trials conducted limited and revised in September until December, 2016. To obtain representative data, the researchers changed the subject here capita selektita TEP and problematic subject of education with teaching and learning. This is done as well as the number of students in S21 on the course teaching and learning too little, so that researchers will menggati this research subject on the subject of learning and the learning environment of students in S1. Course teaching and learning in S1 programmable students of all courses of study in the faculty of science education.

Thus, the data that will be obtained is expected to reach the perfection of design or design-based learning instructional strategies banded learning problem-based learning th that can be used by taking into account the characteristics of students as a whole.

CONCLUSION

Based on the pre-development and development has been done in this study, summarized the results as follows. 1. Competence lecturer in improving skills is still spinning on the discussions, question and answer, and not too many students are involved in the problem-authentic problems in the field as tangible evidence that the actual dibutuh students to know, so that the competence of lecturers still needs to be improved. 2. Cooperation between the inter-faculty with the same subjects the need for collaboration in the acquisition and development kraetivitas learning outcomes of students in problem solving learning. 3. Most students require consultation / communication as a follow-up process asks after the lecture in the classroom (face-to-face tutorials). 6. Most of the students have been using smartphone applications NESS student has followed the technological developments that will feel good when used as a means of communication with the professor as a forum for collaboration and bertanta about what has not been understood in the completion of tasks belajaranya.

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THE EFFECT OF LEARNING STYLES FOR ENGLISH SPEAKING SKILL

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ABSTRACT
Everyone has a dominant learning style that allows them to easily absorb the information it receives. This paper is the result of a study corresponding author modalities influencing students to absorb information on the differences in the English speaking skills. This research was conducted in class X of SMAN 1 Lamongan. The study design used the ex post facto with a population of 383 students and the number of samples was 70. The data collection technique used questionnaires and tests on the ability to speak English. The data analysis used descriptive analysis and one-way ANOVA using parametric statistical methods. This was done because it was based on a statistical test, the normal distribution of research data and homogeneous. The results showed that the students who had a visual learning style as many as 32 students, with a mean of 69.56 and a standard deviation of 12.281; then the students who had auditory learning styles as many as 20 students had a mean of 66.10 with a standard deviation of 10.935; while the students who had a kinesthetic learning style as many as 18 students had a mean of 66.28 and a standard deviation of 12.942. The results of data analysis showed that the significance value (sig.) of 0.511. This showed that there was no significant difference in the English speaking skills among the students who had learning styles of visual, auditory and kinesthetic.

Keywords: learning styles, English speaking skills

INTRODUCTION
For most high school students, speaking in English it is still difficult. This perception continues to build that into the belief by most students that English speaking skill was difficult to achieve. So as to change the mindset of students related to the perception of spoken English from difficult to easy to be very helpful. It is based on the opinion of Nazara (2011) that the perception of the students about her abilities related to the level of speaking ability will motivate them to develop English speaking skill. What do teachers in guiding the learning activities are also a major influence on perceptions of learners understand the activities speak English they learned.

Perception difficult will speak English experienced by the students triggered them shame and fear when they are asked to communicate using English. It is based on research results Bashir, et al (2011) found difficulty speaking English starting from shyness to express it. Shyness makes it difficult to develop students’ speaking abilities which lead students do not get a chance to speak English, both inside and outside the classroom.

In addition to these problems, according to Ahmed (2012), there are several factors that influence the success of learning a foreign language, one of which is the student's learning style. Classification of perceived student learning styles can help students easily receive information in accordance with the modalities owned. The study results Nunan (1991) explains that learning style is the key to developing a performance at work, at school, and in interpersonal situations. When he realized how a person absorb and process information, learn and communicate into something easy and fun.

Clarify the above opinion, White (2004) wrote in an article that every child has three learning modalities, namely visual, auditory and kinesthetic. Therefore, most learners to filter, process, and communicate in learning to use these modalities. Modalities Visual access the visual images created or retained. For example, color, spatial relationships, pictures, and more. While auditory modalities to access all kinds of sounds and words that are created or retained, for example music, tone, rhythm, rhyme, dialogue and so on. Then kinesthetic modalities of
accessing things done or given to the movements and emotions, such as coordination of movement, emotional response to the rhythm and physical comfort.

Xu (2011) in an article explaining that the possible visual students become good readers while students auditory can become articulate and communicate. Language teachers should put the student's learning style differences in the learning process and teach it balanced. Different teaching approaches can be integrated in the form of different tasks or activities to please all the students so that the achievements of the teaching will be better.

Gilakjani (2012) conducted a study to determine the students' learning styles and their impact in learning English in Iran. Results in classes where the study shows that visual learning style of the most dominating, followed auditory and kinesthetic. He also revealed that students learn best by seeing the value and importance of the information presented in class. If students are not interested in the material submitted, they will not learn. Classification of students' learning styles will enable students to define their own personal strengths and weaknesses and learn from it. Teachers can use the students' learning styles in the classroom by identifying ways of learning of each student, then adjust teaching styles to learning styles for the provision of hard or easy task, and also the adjustment of learning strategies with a variety of learning styles of the students.

In addition, the results Ampa, et al (2013) recommend the student's learning style classification consisting of visual, auditory and kinesthetic learning in designing related to the ability to speak English. Results of analysis showed that the frequency of the use of visual learning style 54%, then 68% Auditory and Kinesthetic 39%. Based on various studies, the authors try to assess whether there is any difference in the English speaking skill among the group of students who have a visual, auditory and kinesthetic learning style.

**METHOD**

This study design was causal comparative research (ex post facto), it aims to reveal possible causal relationships between variables without manipulating variable. That is, the variables to be tested casual relationship has occurred in reasonable condition. Research in this plan implemented by way of observing the variable first and then the result of observation of variables that allegedly caused it. The population in this study were 383 imposed as a sample of 70 students. The technique of collecting data using questionnaires and tests. A questionnaire was used to identify students' learning styles. Learning styles questionnaire used in this study using a questionnaire developed by DePorter and Hernacki (2000). Instruments learning styles questionnaire was used to assess whether the student has a tendency learning style visual, auditory or kinesthetic. The instrument for each learning style is composed of 12 of the questions. Each question was given a choice of three answers to choose one, namely: often, sometimes, rarely. In all three instruments are each student will fill by giving a check mark (√) in the column answers, namely O for Often, S for Sometime and R for Rarely. Many questions are checked for each questionnaire is given a value, which is the formula as follows:

$$\text{Learning Style Values} = \sum O \times 2 + \sum S \times 1 + \sum R \times 0$$

Scores will be obtained from each instrument that represents the learning styles were then compared. Score the highest instrument shows the tendency of learning styles that are owned by the student. With this instrument the students can be grouped into three categories, namely students who have learning styles of visual, auditory and kinesthetic. For the needs of statistical analysis, all three learning styles are categorized (1 = visual, 2 = auditory, 3 = kinesthetic).

The test is used to determine the level of students' ability to speak English. There are 10 aspects of assessment, including aspects of content (content), grammar (grammar), the kind of words (vocabulary), clarity (fluency), pronunciation (pronunciation), intonation, word choice (diction), organizing, interactive communications, discourse management, with a score of each aspect of a maximum of 5 and a minimum assessment 1. the tenth aspect is used to assess the English
speaking through monologues and interpersonal, the accumulated value of the lowest end of 20 and the highest score of 100. The analysis of data using descriptive analysis and one way ANOVA.

FINDINGS AND DISCUSSION
Based on the analysis of learning styles questionnaire on research class as a whole, it is known that students who have visual styles as many as 32 people, and students who have auditory learning styles as many as 20 people, while students who have a kinesthetic learning style as many as 18 people.

Before analyzing the study data to determine whether there is difference in the ability to speak English among groups of students who have learning styles of visual, auditory and kinesthetic, author of the first to test the prerequisite. Prerequisite test in question is a test of normality and homogeneity of data, it is intended to determine the statistical methods used to analyze the research data.

Normality test data is performed on the null hypothesis (Ho) which states that the sample comes from a population that is normally distributed. Criteria for acceptance and rejection of the hypothesis is based on (1) if the value is significant (sig.) Or a probability of less than 0.05 alpha means of data distribution is not normal, and (2) if the value is significant (sig.) Or a probability of more than 0.05 alpha means the normal data distribution.

Based on calculation of data normality test the ability to speak English to the students’ learning styles (visual, auditory, and kinesthetic) with SPSS version 16.0 presented as Table 1 below.

Table 1. Test Normality value the students’ English speaking skill based on learning styles

<table>
<thead>
<tr>
<th>Gaya_Belajar</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Posttest</td>
<td>Visual</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>Auditorial</td>
<td>.162</td>
</tr>
<tr>
<td></td>
<td>Kinestetik</td>
<td>.164</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction
* This is a lower bound of the true significance.

Based on the test Lilliefors Significance Correction of Kolmogorov-Smirnov as shown in Table 1 above that the value of significance (sig.) In the group of students who have a visual learning style is 0.200 ≥ 0.05, then the value of significance (sig.) Group of students who have learning style auditory is 0.182, which means also greater than 0.05, whereas in the group of students who have a kinesthetic learning style significance value (sig.) data is 0.200 which is also greater than 0.05. So that it can be concluded that the data is the result of the English speaking skill is based on the student’s learning style experimental class and control class normal distribution. To strengthen the normality of the data, plot graphs are presented as shown in Figure 1, Figure 2 and Figure 3 below.
Figure 1 Graph Normal Q-Q plot of posttest-Visual Learning Styles

Figure 2 Graph Normal Q-Q plot of posttest-Auditory Learning Styles

Figure 3 Graph Normal Q-Q plot of posttest-Kinesthetic Learning Styles
In the graph shown in Figure 1, Figure 2 and Figure 3 above is known that the normal QQ plot, both on the learning styles of visual, auditory and kinesthetic look no straight line from left to right top and data scattered around the line, so it can be said that the data the normal distribution.

The next prerequisite test is the test of homogeneity. Homogeneity testing is used to show that two or more groups of data samples come from population which have the same variance. Testing homogeneity of variance samples in this study conducted on learning outcomes of the ability to speak English. Testing homogeneity of the sample variance using Levene’s Test with a significance level of 0.05. The criteria for determining the homogeneity of variance test samples can be done by comparing the results count towards learning outcomes significance level of 0.05. If the significance value less than 0.05 then said to the sample data comes from populations having variances are not equal or heterogeneous. On the contrary, if the significance value> 0.05 then said to the sample data comes from populations having the same variance or homogeneous. Based on the results of the statistical count shown in Table 3 below are unknown significance value of 0.321, which means greater than 0.05. It can be concluded that Ho is accepted, it means that the sample variances homogeneous.

Table 2 Test Homogeneity value the students’ English speaking skill

**Levene's Test of Equality of Error Variances**

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.998</td>
<td>1</td>
<td>68</td>
<td>.321</td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Metode

The test results showed that the prerequisite normal data distribution and homogeneous. So that it can be concluded that the data were analyzed using one way ANOVA with parametric statistical methods.

Based on the statistical studies, the authors analyze the data value the ability to speak English students in terms of learning style. Based on the analysis of descriptive note that the group of students who have a visual learning style are 32 students on average the English speaking skill was 69.56 with a standard deviation of 12 281. Then average the English speaking skill auditory student groups totaling 20 students was 66.56 with a standard deviation of 10 935. While groups of students who have a kinesthetic learning style average value is the English speaking skill was 66.28 with a standard deviation of 12 942. The detailed results of the descriptive analysis of data can be seen in Table 3, below.

Table 3. Descriptive analysis of Students’ English speaking skill in terms of learning styles

**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Gaya_Belajar</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>69.56</td>
<td>12.281</td>
<td>32</td>
</tr>
<tr>
<td>Auditorial</td>
<td>66.10</td>
<td>10.935</td>
<td>20</td>
</tr>
<tr>
<td>Kinestetik</td>
<td>66.28</td>
<td>12.942</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>67.73</td>
<td>12.035</td>
<td>70</td>
</tr>
</tbody>
</table>

Based on the purpose of the study, performed data analysis to determine whether there is any difference in the students’ English speaking skill in terms of learning style. Therefore the
statistical hypothesis in this study as follows, Ho: there is no difference in the English speaking skill among the group of students who have learning styles of visual, auditory and kinesthetic, and Ha: there are differences in the English speaking skill among the group of students who have a visual learning style, auditory and kinesthetic. Decision-making is based on a probability value, that is, if the value of significance (sig.) > 0.05 then Ho is accepted and if the significance value (sig.) < 0.05 then Ho is rejected. The detailed analysis of the data to determine whether there is a difference between the ability to speak English all three learning styles that can be known in Table 4 below.

Table 4. Data analysis the Students’ English speaking skill in terms of learning styles
Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>198.557^a</td>
<td>2</td>
<td>99.278</td>
<td>.679</td>
<td>.511</td>
</tr>
<tr>
<td>Intercept</td>
<td>298086.402</td>
<td>1</td>
<td>298086.402</td>
<td>2.039E3</td>
<td>.000</td>
</tr>
<tr>
<td>Gaya_Belajar</td>
<td>198.557</td>
<td>2</td>
<td>99.278</td>
<td>.679</td>
<td>.511</td>
</tr>
<tr>
<td>Error</td>
<td>9795.286</td>
<td>67</td>
<td>146.198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>331095.000</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>9993.843</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the analysis of data as shown in Table 4 above, it is known that F count 0679 with a significance value is 0511. Hence the significance value (sig.) > 0.05, then Ho is accepted. This means that the average value of the English speaking skill among students who have learning style visual, auditory, and kinesthetic are not significantly different or no significant difference in the English speaking skill among students who have learning styles of visual, auditory and kinesthetic.

The result showed that there was no significant difference in the English speaking skill among students who have learning styles of visual, auditory and kinesthetic. This is due to the three groups of students who have different learning styles that have a value range average (mean) is not so much different. The group of students who have a visual learning style, scored an average of 69.56 with a standard deviation of 12.281. Then the group of students who have auditory learning style earned an average value of 66.10 with a standard deviation of 10 935. While groups of students who have a kinesthetic learning style earned an average value of 66.28 with a standard deviation of 12 942. Condition of the ability to speak English all three learning styles can be seen in Boxplot as presented in Figure 4 below.
The absence of differences in the English speaking skill among the three groups of students who have learning styles that according to our analysis there are several reasons. First, the use of learning media to stimulate students understand the material in accordance with the perceived lack of optimal learning style. So most students are less able to absorb information from media that is used as part of a speaking activity.

Second, although the number of times the teacher reminded that speaking English was easy, but most students still can not completely eliminate their mindset related to speak English is difficult. This makes them learn in a state of distress. This condition is causing suboptimal students use their learning style so as to encourage the ability to speak English they grow and develop. It refers to the opinion of Nazara (2011) that the perception of the students about her abilities related to the level of speaking ability will motivate them to develop English speaking skill.

Third, differences in students' basic ability to dominate their English speaking skill. Learning styles only help students absorb the information on what is learned. But when they were asked to practice speaking English, students feel less confident on capabilities. This is made clear by the conclusion of the study Woodrow (2006) that many students are anxious related to lack of ability to speak at their disposal. As a result, many learners are scared when the material is related to the speaking skills.

CONCLUSION

Based on the findings and discussion in mind that there is no significant difference between the groups of students who have learning style visual, auditory and kinesthetic. There are some things that cause the absence of these differences, including: (1) the use of instructional media and other means to help students absorb the information and the material being taught is less optimal. (2) The average student still can not fully eliminate the perception that speaking English is easy, students are more worried about speaking it harder than on optimizing the learning style they have. (3) In general, learning styles can help students absorb the information being taught, but less able to apply in the activities of speaking in English.

REFERENCES


**BIODATA**

**Abd. Ghofur**, Born in Lamongan on January 26, 1987. Profession as a lecturer in STKIP PGRI Lamongan. In addition, he is also active in several activities in a scientific forum.
EFFECTIVENESS OF AUDIO VISUAL MEDIA IN SHAKE HANDS CONDITIONING PROGRAM FOR EARLY CHILDHOOD EDUCATION

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ABSTRACT
When children enter into kindergartens, many children who have difficulties follow the conditioning program. For example, some children always cry when going into the classroom. Many children asking to their parents should be staying with them in their class. There are many children who do not shake hands when they meet with their teacher. There are many children do not care or do not want to conduct with each others; whereas to make the attitudes or good behavior through the conditioning program for early childhood is always done every day. Based on this situation conditioning programs are needed to be examined. One of them is the using of audiovisual media for shaking hands in the conditioning program. The aim is to familiarizing children to shake hands properly for anyone who find them. Through some examples for shaking hands in audiovisual impressions, so the children will be able to carry out this conditioning program for shaking hands with automatically and precisely. The indicators of shaking hands automatically and precisely in this conditioning program are: 1) The children shake hands with their teacher or their friends without being asked. 2) The children shake hands with good attitude and properly. 3) The children shake hands with utterance of the greeting properly. This research used a quasi experiment with one group design using pre test–post test pattern. The gathering of data used the performance test and observation, to know the attitude of the children while shaking hands. The method of data analysis used was by statistical t-test analysis. The results of this research showed that learning with audio visual impressions could be seen, could be replicated, could be felt and could be heard that was very effective to improve the program's conditioning. The effectiveness of this program during audiovisual impressions, the child could sit for long times (about 15 minutes). They always paid attention carefully (with high concentration), as well as interact and respond automatically to the material impressions.

Keywords: Conditioning Program, Audio visual Media.

INTRODUCTION
The Kindergarten conducts the Conditioning programs to develop the life skills (soft and hard skill) for early children. The goal of this program is to develop: (1) the ability to love himself, through to understand, to accept, and to direct by himself (2) the ability to love each others through to cooperate and to collaborate, to help, and to empathetic

To develop the conditioning program is expected the children who has 4-5 years old, they already has the ability to behave well. For example the child already has the ability to: 1) shake hands and say the etting correctly. 2) Gives and asks for helping properly when there has the problems. 3) Implement rules that are desided by the school, or the teacher. 4) interact socially with their friends. But the facts in the field that some children who has 4 – 5 years old still do not have the capability with optimally. One of the courses is less precise to establish the behavior for early childhood. The for examples are: (1) using learning media is not variation. Teachers only use learning media image as an example for good or bad behavior (2) the example of behavior that is given by Teachers is difficult to learned hardly by the children, the children can understand to require quite a long time (3) the using of the behavior is much in verbal issues, so the children are lack of understanding about behavior (4) lack of supporting or the real examples to behave. For example when the children at home never got the reward or punishment from the people around them. Because of that the children when theye are at school also behave same think. Based from the above problems, so one possible solution is to
implement conditioning program with the using of audio visual media. Because this medium can be seen, can be heard, can be felt, and can be imitated by the children.

DISCUSSION

1. The deliberations of the Conditioning Program

The formation of attitudes and behaviors process that are settle relatively and automatically is done in the learning process repeatedly. These activities are called the conditioning programs. The conditioning program can be implemented in: regular activity, spontaneous, be schedule, and good model. In this study the author focus on the conditioning program for "shook hands" on a regular activity, be schedule, and good model. The Regular activity means the activities are conducted regularly and continuously in the school. The implementation be schedule means the activities that be undertaken gradually and adapted with schedule has been concluded. The good model means the teacher performed shake hands to others, which can be used as an example for the children.

The impression of audio visual consist of some examples of good and perfect shaking hands, it always be done routinely, be schedule, and good model. For example, when the children do shake hands in appropriate based on the rules, then the task of the researcher and class teacher must correct and give the example by showing how to shake hands appropriately based on audio visual impressions. When the child behaves not precisely, the teacher will guide him as like as the impression material in Audio visual. Eventually the child can understand and want to change his attitude. Indeed there are still children who are advised and shown some examples appropriate behavior based on audio visual impressions, they still can not change their attitudes. For example, when the child shook hands with his teacher, the child does not to look at his eyes, he just looked at a glance away. He does not want to kiss the teacher’s hands, when they kiss the teacher’s hands very quickly. Some children want to say greetings briefly, for example "Assalam". For these children need to be reminded and given examples as well as the material of corresponds into the audio visual impressions. This step is to change or to refine for the improving of conditioning program (especially shake hands attitude). Both the contents of the audio visual impressions and conditioning program (shaking hands) very effective to perform and change the child’s behavior. According to Campbell opinion (2005) If the child has good attitude or behavior positively, then the teacher should give reinforcement immediately, so is called behavior modification. Conversely when the child brings out the negative attitude, so the teacher should also guide immediately in order to changes the child’s attitude. This strategy usually can reduce the excessive behavior. For example, when the child meets with his friends he does not shake hands. If he asked to shake hands, he even run away, or indifferent, or scornful. The child behaved like this, he need to be reminded in order to the child want to shake hands with courtesy and good behavior (changing attitude).

Conditioning activities through audio visual impressions is as well as a method of instruction technique learning (instructional technique). This method is done by giving instructions or orders specifically and concretely about the desired behavior. When the child learns by watching the following audio visual impressions (how to shake hands good and perfect), it’s means this method of learning technique instruction is applied. For example, the child is asked to sit with a neat and politely while paying attention to the audio visual impressions, but there are children who sat with the irreverent position, even they mean to her friends, they covered the other friends’s view, so the teachers must remind (give instruction). For that the child needs to be reminded in order to the sitting position very good and polite, and also his hands is not used to mean to his friends. This Instruction can function to correct the wrong attitude, and to teach new behaviors correctly and polite. So audio visual impressions can streamline the result for the conditioning program particular "attitude of shook hands” for early childhood.
2. Discussion of Media Audio Visual Learning

According to Heinich, Molenda, Rusel, in (2010:290) the word "media" is defined as the type of components in the environment students, it can serve to stimulate the learning student. The definition of the media leads to something that deliver or forward information (messages) or the subject matter between the source and the receiver, i.e., between the teacher and the student. In this research, the learning media referred to the audio visual impression which is used to satstreamline for conditioning program in particular the attitude of shaking hands. The material or the contents of the audio visual impression consist of the examples of shook hands attitude that is true and vary good. As for the charge indicators that shake hands is good and true in this study are: 1). the child sticks his right hand to shake hands, 2). The face forward to the people who were invited to shake hands, 3). Standing position and silent while shaking hands, 4) Say a greeting with the ords clear and perfectly. For example "Assalam alaikum Warohmatullohi wabarokatuh". The results of this conditioning program top conditioning that impacts form audio visual impression is indeed effective and significant. For 8 times learning with Audio Visual impressions, most (30 children) from (34 children as sampled in this study) they can already do shake hands properly. When the meet their teacher, they want to carry out shaking hands automatically. But when they met with his friends, some of them still willing to carry out shaking hands, and some o them are the unwilling to shake hands. Finally, most of them can already do shake hands with a good attitude and polite. The shake hands with good position, the body was the strapping, silent, look at the face, kissed thehands, and say greetings with precision. Result of observation about shake hands' attitude between before and after the children learn by using media of audio visual impressions is quite difference. Went into the classroom some children don't want to shake hands with the teacher, but now they always accustomed to shaking hands. Originally the children want to shake hands must be reminded, but now they've not be reminded again. While shaking hands they do not to kiss the teacher's hand, but now they accustom to kiss teacher's hands. Originally they are not say the greetings, now they always say the greetings with the words correctly. Even though when the ending to learn or to go home, the student always ask for shaking hands with their teacher. The Media of Audio visual immersion is premiered 1 times a week countinously for 2 months. While the other days is used to observe and to give guidance to the children who have bad attitude of shaking hands. Beside that, The teacher also gives reinforcement to the child who has to do positively. For example, children want to shake hands, want to kiss teacher's hands, want to pronounce the greeting with the right and good words. Indeed there are still children (4 children of 34 children) who have seen the audio visual impressions, but they have not been right in doing the shaking hands. Because they are the handicapped children or special need children. Eventhoug, they also always follow the activities of learning with audio visual impressions, but the results and his attitude while shaking hands is still insufficient. One day they want to shake hands, but they can not shake hands correctly. Some time they do want to shake hands, shake hands but the other times they don’t want to, even they ran, play, and do something in accordance with their joyfull. By the time the children shake hands, they are not saying a greeting and do not want to kiss teacher’s hand. The reason is the children can not memorized greeting words. When they say greetings, they do not perfectly. Teacher aid is already given but the children still does not want to do.

In this research study showed that using the media audio visual very helpful for recovery overcoming the children’s problems that occurred in conditioning program. In these case has benefits as well as:

1) Learning by using Audio visual media will better attract to the children attention, so it can be to cultivate the motivation of children learning. Because of this medium makes the children happy to see with fun, the voice that can be heard with great attention, and make the students easy to imitate what they saw.

2) learning materials in the audio visual impressions is some examples how to behave well and shake hands properly, so the student are very easy to be understood. Because this material is designed accordance with the carecteristics, temperaments, as well as the child's immediate environment everyday.
3 Audio Visual Impressions is a learning method that is varieties so the students are not easily bored. In general the learning methods are used in education for early childhood around the playing game, telling story, as well as writing tasks. With using Audio visual is a new style as varieties of learning method for in a study in OLD and ..

4) kids doing more learning activities, thought and physical activities actively. Because the presence of audio visual impressions are not just listen to the description of the teacher alone, but they also perform other activities such as observing, do (emulate behave), demonstrating (follow and match), and others.

According the opinion stage of Piaget's stages of child development, that the standard of early childhood pembalajaran still need media/it the real thing/real. So, the dominant children willing and able to learn because of the activities of observation, listening, and examples of real actions/deeds. Early childhood has not been able to think abstractly and still are remote (development of sensing aspects, namely learning via aspects of vision, hearing, perabaan, menghidu, and feelings).

3. The deliberations of the research results

Following a discussion of the results of the research the shape of numbers (quantitative) of a sample of 34 anakentang t. value, i.e. from pre test (before audio visual impressions carried out), and the value of the post test (after following the audio visual impressions) can be described in the following table:

<table>
<thead>
<tr>
<th>NO</th>
<th>ASPEK</th>
<th>HASIL PRETES</th>
<th>HASIL POSTTES</th>
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<td></td>
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<td>Nilai</td>
<td>Jml. Anak</td>
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<tr>
<td>1.</td>
<td>Mau Berjabat Tangan</td>
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The following is data analysis with t-test

**Tabel : 4**

**Tabulasi analisa Kegiatan hasil Pre-test dan Post-test**

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<thead>
<tr>
<th>Subjek</th>
<th>Pre-test</th>
<th>Post-Test</th>
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<th>X²d</th>
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<td><strong>Jumlah</strong></td>
<td><strong>235</strong></td>
<td><strong>319</strong></td>
<td><strong>84</strong></td>
<td><strong>51,02</strong></td>
<td><strong>99,24</strong></td>
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<tr>
<td><strong>Mean</strong></td>
<td>6,91</td>
<td>7,88</td>
<td><strong>0,97</strong></td>
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</table>

Furthermore the results of the analysis of the author's work enter in the formula are as follows:

\[
\text{Md}/t = \sqrt{((\sum X^2 d)/(N (N-1)))}
\]

\[
t = 0,97/\sqrt{(99,24/1122)}
\]

\[
t = 0,97/\sqrt{0.08}
\]

\[
t = 12.125
\]
Appropriate conditioning activities table of results, particularly the aspects above 3 shows a very effective and beneficial. That is to say of a child who has the attitude of insufficient conditioning, audio visual impressions after seeing the extensive examples of the behavior of shaking hands, they can be changed and have the attitude of shaking hands with good as expected. From various angles the discussion above shows that the "Learning with audio visual media using highly effective and very helpful to boost success conditioning programs against" shake hands "for early childhood".

CONCLUSIONS, SUGGESTIONS AND COVER

Based on the results of the research and the discussion then a conclusion can be drawn as follows.

Audiovisual media are very effective used as a development attitude behavior for early childhood

Audiovisual media that can be seen, be heard, as well as emulated can be used in conditioning program for the improvement of early childhood.

Conditioning program shook hands good and perfect for early childhood is very effective when implemented by means of "see, hear, note, and performed or simulated".

Advice

The use of the audiovisual media are still less likely to be used for early childhood learning, due complicated and require audio visual facilities are not cheap price. For that OLD teacher teachers who already have the media need to practice/trained to use.
The development of the audiovisual media that uses research to early childhood frekwensinya need to be improved both for conditioning material or other development aspects.

Cover

Hopefully with the inscription as a summary of the results of this research can add insight and feedback as a basis in developing a conditioning program for early childhood.

BIBLIOGRAPHY
THE DEVELOPMENT OF SYNTAX TEACHING MATERIAL ON LITERATURE TEXT-BASED TO IMPROVE STUDENT LEARNING OUTCOMES OF PBSI STUDY PROGRAM OF UNIVERSITY PGRI ADI BUANA SURABAYA

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ABSTRACT
Based on the observations and evaluations that researchers do in the implementation of lectures in the course of Syntax in Indonesian Language and Literature Education Study Program of University PGRI Adi Buana Surabaya found various problems. The urgent problem to be solved is the lack of teaching materials and the absence of syntax instructional materials that use real language data in a variety of contexts. This problem will be solved with the development of teaching materials of literary text-based syntax. The purpose of this research was to develop teaching materials of Syntax text-based literature to improve student results of PBSI Study Program of University PGRI Adi Buana PGRI Surabaya. It described the assessment of experts, peers, and student response as prospective users. This research was the development of the Research and Development (R & D). The development model used was a 4-D model, which consisted of a) Define stages, b) Design, c) Develop, and d) Disseminate (deployment) stages. The data collections were done by using a questionnaire, which included a questionnaire assessing the quality of teaching materials and assessment of the effectiveness of teaching materials. The data were analyzed using descriptive statistics. Based on the analysis of data it revealed that known to the average results of expert assessment of the quality of teaching materials of 4.13 in both categories; the average peer assessment of faculty of 4.26 with very good categories; The student response to the effectiveness of teaching materials stating ‘strongly agree’ was 55.56%, 38.89% ‘agree’ on the seventh aspects of assessment and 5.56% disagreed on two aspects of evaluation. It can be concluded that the teaching materials of Syntax-Based Text Indonesian Literary developed was eligible to be used as teaching materials and learning resources.

Keywords: the development of syntax teaching material, literature text-based, learning outcome

INTRODUCTION
In Curriculum of Indonesian Language Education and Literature Study Program of Teacher Training and Education (Fakultas Keguruan dan Ilmu Pendidikan/FKIP) University of PGRI Adi Buana Surabaya, the subjects are grouped in cluster of syntax linguistic subjects. This course aims to make students competent in understanding the nature and scope of the study of syntax, word, phrase, clause, and sentence in Indonesian language.

Based on the observations and evaluations that the researchers do in the implementation of the lecture courses of Syntax, it has been found various problems. These problems can be grouped by component (1) a source of learning, (2) students, and (3) the lecturer. It urgently needs to be pursued is solving the problem of limited instructional materials and teaching materials that contextual text-based syntax. It is necessary for the development of teaching materials Syntax text-based learning-oriented literature and discovery learning. Being based on a literary text Syntax teaching materials to be interesting because of the examples used by the real and contextual sentences. In addition to the development of teaching materials do text-
based syntax will integrate linguistic literature and literature so that in addition to master the linguistic aspects, students also get to know of Indonesian language literature.

By orienting the model of discovery learning will make students able to develop their intellectual discipline will need to find the data, process the data, and use logical thinking to the data (Suchman in Suyanto and Jihad, 2013). Joyce, et al. (2014) stated that the discovery / inquiry learning can increase scientific knowledge, produce creative thinking abilities, and skills in obtaining and analyzing data. With the discovery learning can also train students to apply directly one of the models that are applied in Curriculum 2013 (Kemendikbud, 2013). Thus, it will provide a meaningful experience for the students when they later carry out a real teaching practice in schools.

The research problem is formulated as follows. How is the quality of products subject material development of literary text-based syntax and discovery learning models based on expert assessment, peer faculty and student response?

THEORETICAL REVIEW

1. Material Development

In language learning, there are five components that can not be separated, namely students, teachers, learning materials, teaching methods, and evaluation of learning (Kitao, 1997). In connection with the learning materials refer Kitao view Allwright (1990) which states that the learning material will make students learn and become a source of learning for learning a wide range of ideas and activities. Teaching materials also provide a rationalization for what he did in the classroom. Although the function of teaching materials to meet the needs of students, but often learning material is not prepared in accordance with the conditions and characteristics of students (O'Neill in Kitao, 1997). Further stated the existence of teaching materials or textbook will help students review and prepare lessons, save time and money, and help students in adapting and improvising.

Teaching materials can be defined as a set of materials or substances subjects are arranged in a coherent and systematic as well as figures show full of competencies that students will learn in learning activities (Hernawan, et al., 2014). In line with the opinion of the National Centre for Vocational Education Research Lt/National Center for Competency Based Training (Bandono 2009) teaching material is defined as any material that is used to help teachers/instructors in carrying out the teaching and learning activities in the classroom. Material in question can be material written or unwritten material.

Teaching materials are ineffective according to Rajit (2009) due to the following factors. (1) the material developed is not based on the needs of students, (2) does not fit the context local environment, (3) diction less suitable/appropriate, (4) do not have the sensitivity cultural, (5) is not supported by the government, (6) do not have a track distribution, and (7) are not evaluated properly.

Development of teaching materials is done through the development of research methods. According Sugiyono (2009: 427), the method of research is the development of research methods used to examine so as to produce new products and further test the effectiveness of the new product. There are several models of instructional design development, for example, Dick & Carey, ASSURE, 4-D, ADDIE, Front-end System Design (Personal, 2009).

2. Literary Texts as the Linguistic Data of the Subjects of Syntax

Literature is a creative activity, a work of art (Wellek and Warren, 1993: 3), Luxemburg, et al. (1984: 5) states the literature is a creation, a creation which is mainly a spontaneous surge of emotion. Literary texts, according to Luxemburg, et al. (1984), are divided into three types (genres), the narrative text, the text of drama and poetry texts.

As a creative work that uses the language, literary language has uniqueness. According to Wellek and Warren (1993: 15), the literary language full of ambiguity and homonyms (words that sound the same but different meaning) and has categories of irregular and irrational as gender (the kind of words that refer to sex in order language). English literature is also full of
the association, referring to the expression or works created before. Connotative literary language so it is not just a referential language which simply refers to one specific thing. Literary language has the function expressive, showing a tone and the attitude of the speaker or writer. English literature trying to influence, persuade, and ultimately change the attitude of the reader.

In connection with the activity of reading literary texts, Teeuw (1991: 12) asserts that the reading process is a process of giving meaning to certain texts that require knowledge of code system is quite complicated, complex, and diverse. Necessary understanding of the three codes when the reading of literary texts, ie the code language, cultural codes, and code literature. Text poetry can not be understood if it does not understand the language used by the poet. Language has rules at the level of phonological, morphological, syntactic, and semantic. In addition, language is not a stand-alone. Language is bound by the social context and cultural context. Therefore, understanding the language also means understanding the culture. On the other hand, it should be understood that the literary language was typical. Bound by a code of literary language literature, for example, must be beautiful, symbolic and connotative.

Observing the language of literary texts that have specific characteristics, it would be very interesting if the literary text is used as a data language in linguistic studies, especially in the course of Syntax. By using literary texts, linguistic data is used will be real and have a variety of user contexts.

3. Discovery Learning Model

Model discovery learning is a learning model that put more emphasis on the discovery of concepts or principles that are previously unknown. Use of Discovery Learning, wants to change the condition of passive learning to active and creative. Changing learning teacher-oriented to student oriented. Changing the mode of Expository students only received the overall information from teacher to student, Discovery mode find information about themselves (Kemendikbud, 2013). Interest Discovery Learning is providing opportunities for learners to be a problem solver, a scientist, historian or mathematician. Through these activities, students will acquire, implement, and find things that are beneficial to him. The steps of learning with models of discovery learning is as follows. (1) provision of stimuli, (2) problem statement, (3) data collection, (4) data processing, (5) draw conclusions or generalizations.

4. Learning Outcome

In connection with the notion of learning outcomes, Brown (2007) says, "Learning outcomes are the result or consequence of some learning activity". The next learning outcomes are categorized into five, namely (1) knowledge and understanding, (2) skills, (3) attitudes and values, (4) enjoyment, inspiration and creativity, and (5) action, behavior and progression. According Bodger and Seaborne (Gerung, 2013), learning outcomes are "... anymore or less permanent change of behavior or which is their result of experience".

Sudjana (2003: 22) says that the learning outcomes are the ability of the students after receiving a learning experience. So, learning outcomes are through a process or activity within a specified period. The views of Sujana (2003) are in line with the opinion of Kennedy, et al (2009) which relates to the competence learning outcomes/competency. With reference to the views of The Higher Education and Training Awards Council of Ireland (HETAC), Kennedy, et al (2009) says, "competence refers to the process of governing the application of knowledge to a set of tasks and is typically acquired by practice and reflection. Some aspects of performance insutions may depend on the innate characteristics of an individual. "Furthermore competency learning outcomes are categorized into five (1) competence-context, (2) competence-role, (3) competence-learning to learn, and (4) competence-insight.

In Curriculum 2013, the competence of learning outcomes of students are categorized into three, namely (1) the competence of spiritual and social attitudes, (2) the competence of knowledge, skills and competence. In the course descriptions Syntax dikemukan competencies expected of a student to understand (1) the nature and scope of the study of syntax, (2) the word as kontituen forming a sentence, (3) the phrase, (4) clauses, (5) the sentence, and (6) expansion of a single sentence.
RESEARCH METHODS
This type of research is Research and Development that is a type of research that is used to examine so as to produce new products and then to test the efficacy of such products (Sugiyono, 2009: 427). Research development refers to the model of development of teaching materials 4-D (four-DModel) proposed by Thiagarajan and Semmel (Wahyudi, 2014) which consists of four phases: definition (define), stage design, stage of development, and the deployment phase (disseminate). 4-D model of development used because the researchers have clear stages so as to suit the purposes of development of teaching materials syntax that will be done.

This research data in the form of a response/feedback validator, colleagues/lecturers, and students on the quality and effectiveness of teaching materials developed. Therefore the techniques of data collection techniques used are questionnaire, which includes a questionnaire assessing the quality of teaching materials. These instruments include the assessment of (1) to see teaching materials, (2) content, (3) the feasibility of the contents of teaching materials, and (4) the use of language. The evaluation of the effectiveness of teaching materials include (1) the fulfillment of competency mastery of syntax, (2) the fulfillment of the purpose of writing materials, (3) the fulfillment of the functions of teaching materials, and (4) the fulfillment of the usefulness of teaching materials. The instruments used in data collection are as follows.

The data were analyzed descriptively by using the mean value of answers validator/respondents of each item questionnaire. Response results illustrate the quality of teaching materials in general and each aspect of teaching materials measured part. The formula used to calculate the average is as follows.

\[
\bar{x} = \frac{\sum x}{n}
\]

(Nurgiyantoro, 2001:361)

RESULT OF THE RESEARCH

1. Assessment of teaching materials by experts
An assessment of the quality of teaching materials was done by Dr. Sujinah, M.Pd., the Head of Graduate Program of Indonesian Education, University of Muhammadiyah Surabaya as a specialist course materials of Syntax and Dr. Ruﬁ’i, S.T., S.Si., M.Pd., the Head of Graduate Program of Educational Technology, University of PGRI Adi Buana Surabaya. In addition to experts in the field, the two experts also several times won a competitive grant competition. The results of the second expert assessment of the quality of the teaching materials are presented in Table 1 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects Assessed</th>
<th>Assessment Result</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>V1</td>
<td>V2</td>
</tr>
<tr>
<td>A</td>
<td>Performance</td>
<td>4.14</td>
<td>4.0</td>
</tr>
<tr>
<td>B</td>
<td>Completeness of the content</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>Content feasibility of teaching material</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>The use of language</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Cumulative average</td>
<td>4.29</td>
<td>4.25</td>
</tr>
</tbody>
</table>
The results of the expert assessment of the effectiveness of teaching materials are presented in Table 2 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Responses (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fulfill the needs of competency mastery of syntax</td>
<td>83,33</td>
<td>16,67</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ifill the goal of writing of teaching materials</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ifill the function of teaching materials</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ifill the usefulness of teaching materials</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>83,33</td>
<td>16,67</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 1 it can be seen the average cumulative results of expert ratings of 4.27 in both categories. Thus the teaching materials developed for Syntax has good quality. While based on Table 2 can be seen the results of expert judgment on the effectiveness of teaching materials for all aspects mean 83.33% 16.67% strongly agree and agree.

2. Instructional Material Assessment by Fellow Lecturers

An assessment of the quality of teaching materials is done by fellow lecturers consisting of: (1) Dr. Taufik Nurhadi, M.Pd., (2) Dr. M. Shoim Anwar, (3) Dr. Sunu Catur Budiyono, M. Hum., and (4) Dra. Rahayu Pujiajutti, M.Pd. The results of the peer assessment of the quality of lecturers teaching materials are presented in Table 3 below.

<table>
<thead>
<tr>
<th>NO</th>
<th>Aspects Assessed</th>
<th>Assessment Result</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DS1</td>
<td>DS2</td>
</tr>
<tr>
<td>A</td>
<td>Performance</td>
<td>4,14</td>
<td>4,14</td>
</tr>
<tr>
<td>B</td>
<td>Completeness of the content</td>
<td>5</td>
<td>4,67</td>
</tr>
<tr>
<td>C</td>
<td>Content feasibility of teaching material</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>The use of language</td>
<td>4,5</td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td>Cummulative Average</td>
<td>4,41</td>
<td>4,33</td>
</tr>
</tbody>
</table>

The results of the peer assessment of the effectiveness of lecturers teaching materials are presented in Table 4 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Responses (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fulfill the needs of competency mastery of syntax</td>
<td>75</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ifill the goal of writing of teaching materials</td>
<td>70</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ifill the function of teaching materials</td>
<td>60</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ifill the usefulness of teaching materials</td>
<td>58,33</td>
<td>41,67</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>65,83</td>
<td>46,07</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3 can be seen the average cumulative assessment of the quality of teaching materials by faculty peers by 4.41 with very good categories, while Table 4 it can be
seen by the average cumulative faculty peer assessment on the effectiveness of teaching materials for all aspects of 65.83% strongly agree and 46.07% agreed.

3. Effectiveness Assessment Results of Instructional Material by Students

The results of student assessment of the effectiveness of teaching materials which developed are presented in Table 5 below.

**Table 5** Effectiveness Assessment Results of Instructional Material by Students

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>A.</td>
<td>Fulfill the needs of competency mastery of syntax</td>
<td>62.96</td>
</tr>
<tr>
<td>B.</td>
<td>Fulfill the goal of writing of teaching materials</td>
<td>58.33</td>
</tr>
<tr>
<td>C.</td>
<td>Fulfill the function of teaching materials</td>
<td>44.44</td>
</tr>
<tr>
<td>D.</td>
<td>Fulfill the usefulness of teaching materials</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td><strong>Rerata</strong></td>
<td><strong>53.93</strong></td>
</tr>
</tbody>
</table>

Based on Table 5 note on the effectiveness of teaching materials stated strongly agree 53.93%, 41.90% agree, and 4.17% disagree. Students who disagree on the usefulness of the indicators meet the instructional materials because they assume prefers to use information from the Internet than reading a book.

**CONCLUSION**

Based on the analysis of data, it was found out that the average cumulative results of expert assessment of the quality of teaching materials amounting to 4.27 with both categories; relating to the effectiveness of teaching materials 83.33% 16.67% strongly agree and agree. The mean cumulative assessment of the quality of lecturers teaching materials by 4.41 with very good categories; associated with the assessment of the effectiveness of teaching materials 65.83% and 46.07% strongly agree. There is also the student response to the effectiveness of teaching materials strongly agree 53.93%, 41.90% agree, and 4.17%. It can be concluded that the teaching materials Text-based Syntax of Indonesian language Literature which is developed is eligible to be used as teaching materials and learning resources.

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LITERATURES AS A SOURCE OF DATA


**Biodata**

Agung Pramujionodosen Program Studi Pendidikan Bahasa dan Sastra Indonesia FKIP Universitas PGRI AdiBuana Surabaya. Pendidikan S1 pada Program Studi Pendidikan Bahasa dan Sastra Indonesia FPBS IKIP Malang (1990), Pendidikan S2 pada Program Studi Pendidikan Bahasa dan Sastra PPs Unesa (2005), Pendidikan S3 pada Program Studi Pendidikan Bahasa dan Sastra PPs Unesa (2012). Bidang penelitian yang diminatinya Pragmatik,
Analisis Wacana, dan Pembelajaran Bahasa. Email: agungpramujiono.unipasby@gmail.com.

IMPLEMENTATION OF CHARACTER EDUCATION IN PARENTING FOR WORKING PARENTS WORKING

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ABSTRACT
Humans are social creatures who will not stand apart from others. The entwined relationship especially between men and women can be continued up to the level of their wedding so awarded. The child is the gift to be guided, to grow and be developed by us into an individual character. Character education is education that develops an character values of an individual and applies these values in the life of himself as a member of society. This research is qualitative research with five subjects, namely early childhood aged children with a background of parents who work. From the results of this research it can be concluded that keep paying attention to the character education of the children is considered to be basic education was early childhood. So in this case the child is expected to have and behave with a measure of good and bad based on provisions and ordinances of society or religion.

Keywords: character education, parenting, working parents, early childhood

INTRODUCTION
The family as the primary and the first institution in support of the process of growing flower children from an early age ((Geertz in http://download.portalgaruda.org/article.php?article=136480&val=5663&title=POTENSI%20ELUARGA%20DALAM%20PENDIDIKAN%20HOLISTIK%20BERBASIS%20KARAKTER%20PADA%20ANAK%20USIA%20DINI). Ki Hajar Dewantara (2004) explain the importance of the family in child development help because children still do not have a specific character, does not yet have a fixed form of the soul, and it still is global. The young child received the influence of the environment that will form the basis for their development.

Parenting in the family has two basic tasks, namely to develop character and competence. Early childhood education should be done holistically. Early stimulation provided by the families against children aims to accelerate or enhance his progress accurately shaped auditif stimulation, visual or tactile.

The results showed that the family can potentially develop character through the bonds of strong emotions among parents and children, parents parenting principles which determine the development of the next character.

Character education is a term that is increasingly getting attention at this time. Responsibility in educating the child surely cannot be delegated entirely to the school. Indeed essentially the responsibility of education done in the association between educators and students in a situation of education contained in the household, school or community. However, the educational process in this case give priority to the education of parents, mothers and parents who became very influential towards the education of his sons, so
expect a child is able to have potential and proactive in view of life in accordance with the values of the characters.

Preschool is the age of vulnerable child. At this ages, children have imitated against anything he saw. The family is the first and main environment for children who have a very big influence. The parent is the first and principal educators for their children. From their parents, children has first received education. Parents or mothers and fathers holds a very important and very influential over the education of his children. Hurlock (1998) revealed that the people who are important to the child are parents, teachers and peers because they know the children of something good and not good. Education within the family is good and true, it will be very influential in the development and formation of his character.

Good parenting for child characters formation is parenting parents who prioritize the interests of the child, but the parents who also control the child. Consciously or not, is accepted with full heart, parents can’t eluding that responsibility because the son is a gift from God and need to be instilled about character values since early childhood. (/alfiyah90.wordpress.com/2012/11/30/peran-orang-tua-dalam-membentuk-karakter-anak/)

The golden age is the golden age of a child and is a time when children have a lot of potential for development. At this stage of the highly precise time to instill the values of kindness, character, who is expected to be able to form his personality.

So that’s the importance of early childhood education done in maximizing the capabilities and potential of children. Utilizing the golden age as the time coaching, direction, supervision and the establishment of the children's character from an early age. With character education at early stages, the expectation in the future children will be able to become a human personality well so beneficial to himself or the community, the nation and the State.

However, at the time of modernization is currently making many families experience changes in fundamentals (Lickona in Saptono, 2011:23). This is due to the demands of the job so many families who have little time for the continuation of the close encounter between father, mother and children. Because often new parents got off work while his son was already a good night and went to work while the child still be lulled dreams. In fact, many families are due to the demands of the fulfillment of the necessities of life, chose not to live in one House, but rather the distant place of residence between the father, the mother and child. Not to mention the more problematic family: not harmonious, there a variety of domestic violence even divorce.

In other words, it can be concluded that the more families that could not function as the best place for the kids to get an education character, but at least the family function remains to be returned to its original function, i.e. basic education that starts from the family.

Character education will take place in vain, whereas there is no participation of the elderly in expanding it. Character education a greater emphasis on the habits of the child to do things that are positive. Customs is what will then become a strong imprint and embedded in the psyche of the child. Here are the values character education that can be trained from an early age, namely: 1). Religious; 2). Honest; 3). Tolerance; 4). Discipline; 5). Hard Work; 6). Creative; 7). Independence; 8). Democratic; 9). Curiosity; 10). The spirit of the nationality; 11). Love the motherland; 12). To appreciate the achievements; 13). Communicative or Firendly; 14). Love of peace; 15). Like to read; 16) Care for the environment; 17). Social Care; 18). Responsibility

Based on the background of the above, the purpose of this research is to know the role of parents in developing character education at the early childhood especially for the parents who work.

**LITERATURE**

The character is the nature or characteristics of the psychological, moral, or manners that distinguish a person from another; in behaviour; character. So it can be said that the character is a way of thinking and behaving that became the hallmark of every individual to life and worked together, both in the family environment, society, nation, and State. Individuals who are of good characters are individuals who can make a decision and is ready to account for each result of the decisions that he made.
Character education can also be described as character education, namely involving aspects of knowledge (feeling) and action.

As for the goal of character education are: a. Encourage habits and behaviours learners are commendable and in line with the universal values and cultural traditions of the nation religious; b. Enhancing the ability to avoid the deplorable traits that can ruin oneself, others and the environment; c. Fostering kink and sensitivity the learners towards the situation around so that it doesn’t fall into a distorted behavior both in individual and social; d. Instill leadership and responsibilities of the learner as a successor to the nation.

Observe the variety of problems that occur in the community especially with regard to early childhood, then character education in Indonesian has developed into several grades. There are eighteen values character education, namely: (1) religious, attitudes and behaviours that comply in carrying out the teaching of the religion adhered, tolerant of other faiths, execution and life get along well with other religions; (2) To be honest, the behavior is based on the efforts made to assert himself as the man who can always be trusted in the word, action, and employment; (3) Tolerance, the attitude of action who appreciate the difference of religion, tribe, ethnicity, of opinions, attitudes, and actions of others different from him; (4) the discipline, actions that indicate the behavior of orderly and obedient at the various provisions and regulations; (5) the hard work, the behavior that shows an earnest effort in overcoming the various barriers to learning and assignments, as well as a job as well as possible; (6) creative, think and do something to generate new results or from something that has owned; (7) independent, attitude and behaviour that is not easily rely on others in completing tasks; (8) democratic, how to think, behave, and act the same rate that the rights and obligations of himself and others; (9) curiosity, attitudes and actions which always strive to know more profound and pervasive than anything he had learned, seen and heard; (10) the spirit of nationhood, ways of thinking, acting and insightful that puts the interests of the nation and the country above the interests of himself and his group; (11) love the motherland, how to think, act and do that show of loyalty, caring, and appreciation toward the language, the physical environment, social, culture, economy, and politics of the nation; (12) value the achievement, attitudes, and actions that encourage him to produce something useful for the community, and recognizing and respecting the success of others; (13) Friendly or communicative action, which shows a sense of love to talk, hang out, and working with others; (14) peace loving, attitudes, words and actions that cause others to feel happy and secure over the presence of himself; (15) like to reading, has a habit of providing time to read the various readings which give virtue for him; (16) care for the environment, attitudes and actions that are always working to prevent damage to the surrounding natural environment, and developing efforts to repair the damage that has already occurred; (17) Social Care, attitudes and actions that always want to give help to other people and communities in need; (18) responsibility, attitude and behavior of a person to perform the duties and obligations, which should be done to the self, society, environment (natural, social and cultural), country and God.

Eighteen values character education above these is the result of the development of character education in Indonesia which began to be applied at the rate of early childhood education until College. It is intended, so that the younger generation have positive characters and will ultimately bring the advancement of the nation and the country and certainly requires a great role of parents especially associated with his care.

Parenting is believed to have an impact on the development of the individual. According to Baumrind (Santrock, 2003) there are three kinds of parenting, namely democratic, authoritarian and permissive.

1. Democratic

Democratic parenting is parenting that prioritize the interests of the child, but does not hesitate in controlling them. Parents with this behavior being rational, underlying his actions were always in the ratio or thoughts. This type of parents also be realistic against the ability of the child, did not wish to overload that goes beyond the ability of the child. the parents of this type also gives freedom to the child to select and perform an action and his approach to the tepid nature. (Petranto, 2005).
2. Authoritarian.

Parenting is instead likely to set standards that are absolutely must be followed, usually coupled with threats e.g., if do not want to eat, then it will not talk to. The parents of this type tend to be pushy, reign and punish. If the child does not want to do what is said by parents, then parents of this type did not hesitate to punish the child. This type of parent also knows no compromise and communicate usually one way direction (Petranto, 2005).

3. Permissive

This parenting allows his son to do something without sufficient oversight. They tend not to admonish the child if the child warned/being in danger and very little guidance provided by them, so it is often preferred by children (Petranto, 2005). For example, children who entered the room without knocking on the door of elderly people left alone, naked from the shower is left for granted without letting children see, rebuked the image which is not feasible for small children, with consideration of the child was a child. Actually, parents who apply parenting like this just do not want a conflict with his son (Debri, 2008).

Early childhood in general are children under 6 years (Law of Sisdiknas, 2003) and some of expert education give the limit of age is 0-8. Early childhood can also be defined as a group of children who are in the process of growth and development that is unique. They have a pattern of growth and development of the specialized according to the level of growth and development (Mansur, 2005).

Early childhood period often referred to with the term “golden age”. At this time almost all potentials of children is sensitive to grow and develop in a fast and very good. This can we see from the children often ask about what they see. When children question unanswered, then they will keep asking until the child knows the meaning.

RESEARCH METHODS

This study used a qualitative approach in the form of case studies. According to Punch (in Poerwandari, 1998), a case study is special phenomenon that that is present in a limited context, although the boundaries between phenomenon and context are not entirely clear.

The qualitative approach is a process of research and understanding based on methodologies that investigating a phenomenon of social and human problems. On this approach, researcher made a complex picture, examining the words, a detailed report of the views of respondents, and conduct studies on a natural situation. (Creswell, 1998).

Research procedures performed starting from: a) the planning, b) initiated the collection of basic data, c) more intensive data collection, d) closing the data collection was conducted after researchers got all needed information, e) complete, done to improve the results of data analysis and devise ways of serving it.

In this study a number of characteristics determined for the subject, among others, i.e. a family member (mom-dad), a company based in the region of sidoarjo-surabaya. The subjects who were selected based on informant interviews or childcare (taken care of Grandma take care of with respect to child care taken care of by mother).

Data collection techniques used in this research is the observation and interview. The interview was done informally structured to parents of early childhood.

Data analysis used in this research is divided in 3 stages; namely (1) the reduction of data; (2) presentation of data; (3) the withdrawal of the summary.

RESULTS

Implementation of character education in terms of patterns of caregiving is done by Grandma

Patterns of parenting in every family is different. But there is a trend of families (parents) have a high awareness of the importance of character education from an early age. Children are taken care of by one of the parents (mother not working) more direct the child to
guide children’s curiosity and also give you freedom to choose on the child and acted independently but still controlling towards children’s behavior.

Children are taken care of by grandma, tend to use standards attitudes and behavior that are stiff, emphasizing compliance, traditions as well as maintain order and lack of communication. Children are doing outside of the rules that apply are considered naughty and not conforming.

Character education which emphasised has still not completely. Older people tend to apply democratic parenting. They liberate their children to do whatever they want the original accountable properly. The parents and grandmother cooperate in providing the right kind of parenting to the child. The rules are applied are always discussed to the child. For example, rules about polite words speak to older people, accustomed to a life of discipline, namely the existence of hours to learn and play. Beside his parents and grandmother are also applying the values of character is primarily about religious values. Because religious attitude is the basis in the weaves of interaction with others.

Implementation of character education in terms of patterns of caregiving is done on day care.

On the family both parents working and caregiving was turned over to child care, parents tend to apply a democratic parenting pattern. The rules are made at home also applies at the time the child in care. Although children are in day care, parents always communicate with caregivers in care and a commitment to always implement character education in parenting. This is so that children feel confused in the following regulations are applied. In addition, parents have the principle that the cultivation of the character education should be done from an early age. This is because when the child is still in an early age, then the parents will easily teach the values of the character which certainly will have an impact on the child as she ages.

The character values that are developed are also taught to children. Parents and carers in care do conditioning method in the character to inculcate children.

Implementation of character education in terms of patterns of caregiving is done by mothers who work at home

Parenting is done tends towards permissive. This parenting style is usually done by parents who are too good, tend to give much freedom to children by accepting and know all the behaviors, actions and demands, but less demanding attitude of responsibility and regularity of child behavior. Older people have the idea that their kids were little so that cultivation of the character education they think can be done at a time when kids have entered adulthood.

The cultivation of the values of the character also has still not carried out fully. It is also a given that parents assume the child was a girl and not yet fully should be forced to do that right in accordance with the applicable rules. But parents have the principle that although children freed in doing anything, the child must still respect to older people and run his religious worship with full responsibility. Other things outside of it, parents allow children to behave and be free.

DISCUSSION

Character education in the family basically became a necessity. Because family is the foundation of the first education in the life of every human being. So the character education will be effective when applied since early childhood through conditioning. For example, children cradle conditioned to speak with polite words with anyone, obey parents, clean up the environment in accordance with their ability, accustomed to a life of discipline began to get out of bed until towards the bed. In addition, it was also conditioned to perform prayers before and after doing the activity.

To apply the value of the character is to be done through simple things first and the parents surely have regulations as well as rewarding examples of course performed by the parents.
However, character education will take place in vain, if it is not applied early on to children and everyday life. This is due to character education, more emphasis to customs done by children to do positive things where it later will be a character that made an impression and ingrained in the child.

Parents who have not been too stressed on character education and still tend to allow and let the child’s behavior because they assume they are still small. This is certainly going to bring impact on cultivation of character education owned by the child.

For example, if the parents do not infuse character education at early stages, would be an increase in crime, suicide among teenagers, divorce, abortion, the habit of cheating among the students, the habit of stealing merchandise in the store among adolescents, and others. This is evidenced by the increasing numbers of cases of crime by teenagers each year according to data of the Central Bureau of Statistics Indonesia. The data showed an increase in terms of quantity from 2007 which recorded about 3100 people teenagers involved in the case of criminality, as well as in 2008 and 2009 that rose to 3,300 and around 4,200 teenagers. (Badan Pusat Statistik Indonesia, 2010 in https://psikologiforensik.com/2015/01/30/ada-what-in-reverse-crime-juvenile-indonesia).

Not only in terms of quantity, the report of the Badan Pusat Statistik also make it clear that acts of crime committed by teenagers also improved in quality. Where teenage delinquency conducted at first it was just a brawl or fight behaviours between friends, and now developing as acts of criminality such as theft, rape, the use of drugs to murder.

Cases of teenagers who were lively preached at the moment is the behavior of teenagers in a motorcycle gang. According to the data Neta S Pane as the Chairman of Indonesia Police Watch (IPW) throughout the year 2014 there were 38 cases of violence carried out by members of a motorcycle gang, which resulted in 28 people were killed and 24 people were injured (in https://psikologiforensik.com/2015/01/30/ada-what-in-reverse-crime-juvenile-indonesia).

Thus the importance of character education instilled from an early age so that will minimize negative behavior committed by teens.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Parents have an important role in the formation of character education for children. This is because the family is the main and most educational influence in the formation of character. It is therefore necessary for proper way of nurturing and educating children so that it formed a strong character in the child to be brought up until he was an adult.

Suggestions

1. In parenting parents surely also consider about the level of child development.
2. Early childhood is an impersonator who hand-picked so should parents need to keep any behavior, because children will mimic their parents.
3. Parenting applied by parents also should be tailored to the situation and condition of the child at the time. There are times when parents behave democratically, there are times when parents also be authoritarian, but also there are times when parents are permissive.

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Biodata

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My name is Isabella Hasiana. I am a female. I am born was 1980, 16 October in Surabaya. I am work as a lecturer in Early Childhood Education, the Faculty of Education of PGRI Adi Buana Surabaya University.
THE EFFECTIVENESS OF PARENTING EDUCATION IN IMPROVING PARENT’S SKILLS IN HANDLING CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD) IN KB-TK ISLAM TERPADU PERMATA PROBOLINGGO

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ABSTRACT
Autism Spectrum Disorders (ASD) is a group of complex neurodevelopmental disabilities that affect a child’s social, behavioral, and communication skills. In children with these disorders, their brains handle information differently than most children do. Because of that, parents get difficulties in raising them appropriately. In fact, in order to minimize the disruption that occurs in children with ASD, the role of parents is the most important. Parents are the closest persons and who are always with the children. Therefore, it is necessary to give parenting education to parents. This study aimed to know the effectiveness of the implementation of parenting education in improving parent’s skills in handling children ASD in Probolinggo city. This research used quantitative approach which used pre-experimental research. The research design used was one group pretest posttest design. The research subject was 12 parents of children with ASD in Probolinggo city. The collecting data technique in this research used practice test that was measured by observation using rubric observation form. The data analysis techniques used Wilcoxon Signed Ranks Test. The results of this study shown that the result of $Z = -3.066$ and $P = 0.002$ with a significance level ($\alpha$) 5%. Based on these results, $P = 0.002$ was smaller than 0.005, so it can be concluded that the implementation of parenting education was effective in improving parent’s skills in handling children with ASD in Probolinggo city.

Keywords: Parenting Education, Parent’s skills in Handling Children with Autism Spectrum Disorders (ASD)

1. INTRODUCTION
Identification of children with special needs in a family will lead to a variety of responses to the family. Although the response or reaction will be different for each family, according to Gargiulo (2012: 121), generally family response begins with shock, disbelief, denial, anger and depression. Many parents are hard to believe so they tried to check their child to another doctor with hope they will get different diagnosis (not ASD). In this case, Parents need the help of professionals in helping them dealing with this critical situation.

Early intervention for children with ASD is very important. Maulana (2010: 20) states that the earlier a child is diagnosed and interfering with, the greater the opportunities for children to minimize the symptoms as the impact of autism. Interventions done by providing intensive stimulation as early as possible at the age of 2-5 years so that the child is able to get out of his own world. In this case, the role of parents is very important. This is because the parents are the closest persons to children and who are always with the children.

Nevertheless, many parents still do not understand their children. Many parents have difficulty in raising their children. Parents do not know what to do to optimize the development of the child. In general, the topic of children with special needs is very limited to be accessed. It is increasingly make it harder for parents in getting information about how to handle their children.

Zepeda et al (2004: 8) states that many parents of children with special needs find difficulties in understanding their children and need more information about the characteristics of children, child development and how to handle their children. This is in accordance with the
results of interviews to one of special teacher in KB-TK Islam Terpadu Permata Probolinggo explained that out of 12 parents of children with special needs at his school, 8 have difficulty in recognizing the characteristics of children with ASD who have different characteristic with other children, 10 confused about the development of children with ASD and 11 are confused how to handle them to optimize the potential of children.

Besides, the role of parents is one of the successful key of early intervention. Parents are the persons who are always with the children throughout the day, if the parents cannot give positive stimulation to the child, and then the child will be difficult to develop. Stimulation to children with ASD is very important to make them realize there is another world than his. Sunardi and Sunaryo (2007: 208) states that the intervention of children with ASD will be more effective if the family is able to play a role through various changes of attitude and actions that support the learning of language and speech of the child.

Based on that explanation, parents need to be trained to handle children with ASD properly. Beside send the child to school, parents also need to be taught how to handle their children at home to optimize the development of children. To be able to have the competence, it is necessary to give learning or training for parents (parenting education). Implementation of education by empowering parents is one way to optimize a child’s development.

Brown (2000) suggest that parenting education is the giving of knowledge and parenting skills that are specific to parents and caregivers with the goal of optimizing the growth and development of children. Parenting education focusing on specific parenting skills eg, stage of growth and development of children, how to improve physical health, social and emotional of the child.

Parenting education is expected to be a solution in increasing parents' parenting skills. Furlong et al 2000 in Van Ryzin et al (2016: 43) explains that the group-based parenting educations is effective in improving parenting skills and improve the mental health of parents. It is accordance with Thomas & Zimmer-Gembeck (2007) that explains that the results of the parenting education program are the increasing of parent’s confidence, the warmth of the parents to their children, reducing the pressure / stress of parents and increasing the skill of positive parenting skills.

Based on that explanation, the researchers took the "The effectiveness of parenting education in improving parent’s skills in handling children with Autism Spectrum Disorder (ASD) in KB-TK Islam Terpadu Permata Probolinggo" as the title of the study. With the implementation of parenting education to parents, parenting skills of parents can be increased so that children with ASD can develop optimally in the family who really understand them.

2. PROCEDURE

The approach that is used in this study was a quantitative approach which is pre-experimental research type. The design used one-group pretest-posttest design. Treatment was given to the same subject group. The subject group was given treatment for a certain period of time. Measurements were performed before and after treatment, and try to look for the difference between the results of pretest (T1) with the results of posttest (T2). The design of this study can be seen in Table 1 as follows.

<table>
<thead>
<tr>
<th>Tabel 1</th>
<th>One Group Pre test – Post test Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>Treatment</td>
</tr>
<tr>
<td>T1</td>
<td>X</td>
</tr>
</tbody>
</table>

Information:
T1 : Pre-test result
X : Treatments (the implementation of parenting education)
T2 : Post-test result

The research subjects in this study were 12 parents of children with ASD who are their children is student at KB-TK Islam Terpadu Permata Probolinggo. The data that is collected in this study was parent’s skills in dealing with ASD. This study was focused on 3 skills which are (1) understanding of the characteristics of ASD, (2) understanding of the stages development of
children with ASD, and (3) skill in doing the Applied Behavior Analysis (ABA) therapy for ASD. The data collection technique used written test on the characteristics and stages of development of children with autism content, and test performance (practice) on the application of ABA therapy content. Instrument which are used are as follows.

2.1. Written test in understanding the characteristics of children with ASD consisting of 20 multiple choice questions and five essay questions.

2.2. Written test in understanding developmental stages of children with ASD consisting of 20 multiple choice questions and five essay questions.

2.3. Observation from about the implementation of ABA therapy for children with ASD that is assessed with Likert scale (5 scales) based on performance rubric that consisting of 18 indicators.

Then, the result of those 3 skills is averaged in order to know the parent’s skills in handling children with ASD in general. Furthermore, the data was analyzed. Data analysis techniques used a non-parametric analysis techniques which is Wilcoxon sign rank test. The level of significance in this study were (α) 5%.

3. FINDINGS AND DISCUSSION

Pre-test is given before the intervention through written test and test performance (practice). Tests carried out for ± 30 minutes. Then, the subjects’ researches are given the intervention which is parenting education. Parenting education was held for 15 sessions with (3x60 minutes) duration for each meeting. Implementation of the intervention carried out in the classical (group). The materials were: (1) understanding of the characteristics of ASD, (2) understanding of the stages development of children with ASD, and (3) skill in doing the Applied Behavior Analysis (ABA) therapy for ASD. In its implementation, each material was delivered in five meetings. After the intervention, then it performed the post-test to measure the effectiveness of parenting education. Post-test was conducted for ± 30 minutes.

3.1 Parent’s Skill in Understanding the Characteristics of Children with ASD

Understanding the characteristics of children with ASD is the basic ability of parents in raising children. Parents need to know why the specific symptoms appear in children and how to handle it. Based on the research results, parent’s skill in understanding the characteristics of children with ASD before and after parenting education as follows.

Table 2
Pre-test and Post-test result
Understanding of the Characteristics of Children with ASD

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-test result</th>
<th>Post-test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>40</td>
<td>65</td>
</tr>
<tr>
<td>NP</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td>NU</td>
<td>45</td>
<td>75</td>
</tr>
<tr>
<td>II</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>AD</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>RY</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>DY</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>LS</td>
<td>55</td>
<td>80</td>
</tr>
<tr>
<td>DS</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>SN</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>MD</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>MZ</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Mean</td>
<td>41.67</td>
<td>64.17</td>
</tr>
</tbody>
</table>

Based on these data, it is known that the parent’s skill in understanding the characteristics of children with ASD was generally increased. The increase is from 41.67 into 64.17 or it is increased by 22.5%.
3.2 Parent’s Skill in Understanding the Developmental Stages of Children with ASD
The developmental stages of children with ASD are different with others. Cognitive developments, language development, social and emotional development of children with ASD are different with children in general. Therefore, parents need to be trained about this so parents are able to monitor the children's development so that the problems due to autism are not getting worse. Based on the research results, parent’s skill in understanding the developmental stages of children with ASD before and after parenting education as follows.

Table 3
Pre-test and Post-test result
Understanding of the Development Stages of Children with ASD

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-test result</th>
<th>Post-test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>NP</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>NU</td>
<td>40</td>
<td>65</td>
</tr>
<tr>
<td>II</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td>AD</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>RY</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>DY</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>LS</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>DS</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>SN</td>
<td>40</td>
<td>75</td>
</tr>
<tr>
<td>MD</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>MZ</td>
<td>45</td>
<td>80</td>
</tr>
<tr>
<td>Mean</td>
<td>39.58</td>
<td>67.08</td>
</tr>
</tbody>
</table>

Based on these data, it is known that the parent’s skill in understanding the developmental stages of children ASD was generally increased. The increase is from 39.58 into 67.08 or increased by 27.5%.

3.3 Parent’s Skill in Doing ABA Therapy for Children with ASD
One of the methods in early intervention is Applied Behavior Analysis (ABA). ABA is widely applied in Indonesia. Through this method, children are trained in performing various skills such as communicating, interacting, talking, speaking, and others. It is important to give children with ASD in order to make children with ASD live in a society and demonstrate behavior that is common and accepted in society. Parents as persons who always with the children, also need to be trained to apply ABA method. In general, the implementation of ABA method itself is done 4-8 hours a day. Based on the research results, parent’s skill in doing ABA therapy for children with ASD before and after parenting education as follows.

Table 4
Pre-test and Post-test result
The implementation of ABA Therapy for Children with ASD

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-test result</th>
<th>Post-test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>NP</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>NU</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>II</td>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td>AD</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>RY</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>DY</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>LS</td>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>DS</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>
Based on these data, it is known that the parent’s skill in doing ABA therapy for children with ASD was generally increased. The increase is from 26.25 into 54.17 or increased by 27.92%.

3.4 Skills Parents in Handling Children with ASD

Based on the results of the study, from the three skills in handling children with ASD which are understanding the characteristics of children with ASD, understanding the development stages of children with ASD, and the skill in doing ABA therapy for children with ASD, those three skills are averaged to determine the ability of research subjects in handling children with ASD in general. The results can be seen in Table 6 as follows.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-test result</th>
<th>Post-test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>33</td>
<td>58.33</td>
</tr>
<tr>
<td>NP</td>
<td>30</td>
<td>56.67</td>
</tr>
<tr>
<td>NU</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>II</td>
<td>40</td>
<td>63.33</td>
</tr>
<tr>
<td>AD</td>
<td>38</td>
<td>60</td>
</tr>
<tr>
<td>RY</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>DY</td>
<td>33</td>
<td>61.67</td>
</tr>
<tr>
<td>LS</td>
<td>47</td>
<td>70</td>
</tr>
<tr>
<td>DS</td>
<td>30</td>
<td>53.33</td>
</tr>
<tr>
<td>SN</td>
<td>33</td>
<td>61.67</td>
</tr>
<tr>
<td>MD</td>
<td>37</td>
<td>60</td>
</tr>
<tr>
<td>MZ</td>
<td>43</td>
<td>71.67</td>
</tr>
</tbody>
</table>

Then the data been analyzed by the Wilcoxon signed rank test by SPSS 21. Based on data analysis, it is known that the $Z = -3.077$ with $P = 0.002$ with a significance level ($\alpha$) 5%. Based on these results, $P = 0.002$ was smaller than 0.005, so it can be concluded that the implementation of parenting education was effective in improving parent’s skills in handling children with ASD in KB-TK Islam Terpadu Permata Probolinggo.

This is in accordance with the opinion of Thomas & Zimmer-Gembeck (2007) that explains that the results of the parenting education program are the increasing of parent’s confidence, the warmth of the parents to their children, reducing the pressure / stress of parents and increasing the skill of positive parenting skills.

Moreover, parenting education is designed to provide information on parenting strategies to bring together the needs of parents and children. Hotchkiss, Biddle and Sacramento (2009) describe that the parenting education program can reduce the problems of children and provide information on how to raise children to parents.

Brereton (2009), which took the object of study of children with ASD also explains that parenting education program for parents of children with ASD have a major benefit to the parenting skills, including how to maintain good health and nutrition for children with ASD. It can be concluded that the implementation of parenting education was effective in improving parent’s skills in handling children with ASD. With this increased skills, parents can provide a deeper role as a parent in order to optimize the development of the children.
4. CONCLUSION
The results of this study shown that the result of $Z = -3.077$ and $P = 0.002$ with a significance level ($\alpha$) 5%. Based on these results, $P = 0.002$ was smaller than 0.005, so it can be concluded that the implementation of parenting education was effective in improving parent’s skills in handling children with ASD in KB-TK Islam Terpadu Permata Probolinggo.

REFERENCES

Biodata
Ana Rafikayati born in Bojonegoro on 16 December 1988. In 2011, she graduated from the Department of Special Education, State University of Surabaya UNESA. She continued her master degree in the same university in 2012 and she graduated from there in 2014. She has range of experiences as a teacher and consultant of learner with special needs especially for learner with hearing impairment since 2011. She started to be a special education lecturer in 2015 in University PGRI Adi Buana Surabaya. She joined range of project about special education such as the development of recorded book and orientation mobile skill of learner with visual impairment in 2010, the development of communication method for learner with special needs in 2012 and 2013, the development of post school transition for learner with special needs in 2014 and 2015.
ABSTRACT

The numbers game in the mentoring program is meant as a way of students to be able to operate the numbers to answer a mathematical question. This is done by operating the numbers through addition, subtraction, multiplication, and division. Therefore, this media can help counselors address the problem of children who cannot operate figures where this may result in lower math scores. Guidance and counseling program was conducted by using the concept of the operation of the figures having special counselee targets. This numbers game was intended for children of 9-12 years of age. At this age the children are in the development process, so they need a means to facilitate the development, cognitive and affective aspects.

Keywords: Numbers Game, Guidance and Counseling Program

1. INTRODUCTION

The game is a technique that has been around since the dawn of human civilization progress. Techniques and pattern always progress according to human civilization. From the traditional to modern, simple to complex, from which also rely on what is owned by human’s body, then uses the objects that are nearby to use multimedia designed to prepare the game into art, so pleasant, helpful and meaningful for the game’s player.

The playing and games have a different meaning in the playing therapy literature. Play is seen as a natural behavior that fun found in the life of the human and the animal. (Beach, 1945; Plant, 1979)

According to Santrock (Suwardjo & Eliasa, 2010: 2) the definition of playing is a fun activities carried out for the benefit of the activity itself. While Erickson & Freud (Suwardjo & Eliasa, 2010: 2) holds that play is a form of adaptation by human beings that are very useful in helping children over the anxiety and conflict. Piaget (Suwardjo & Eliasa, 2010: 2) see that play as a method to improve the cognitive development of children. While Hurlock (Suwardjo & Eliasa, 2010: 2) give opinions about play is the activities to be carried out on the basis of a pleasure and without considering the end result. Play activities done voluntarily and without compulsion or pressure from outside parties.

The Number Games Mentoring Program is a collaboration of the program guidance group and the numbers operation, such as addition, reduction, division and multiplication. Number Games, according to Sugianto and Rostika (2013), can develop children’s creativity starts from the number introduction’s process until the process of finding the solution of the problem using number operation. It can train student to be creative in finding solution.

2. DISCUSSION

Donald G. Mortensen and Alan M. Schmuller (Yusuf, 2009: 6) defined Guidance as that part of the total educational program that helps provide the personal opportunities and specialized staff services by which each individual can develop the fullest of his abilities and capacities in terms of the democratic idea. Besides that, Guidance, according to Shertzer and
Stone (Yusuf, 2009:6), is a process of helping an individual to understand himself and his world. The guidance program done in this research through number game technique.

Number Games is a guidance technique that is done by number operation, such as addition, subtraction, multiplication and division. Number Games is the technique often used in the guidance and counseling children. Sugianto & Rostika (2013) stated that this media can be used to facilitating the student’s cognitive and affective development.

Implementation guidance activities can be done individually and groups. The Guidance of the group is done when a problem cannot be handled individually. The target of the activities guidance group on the fact of him the same individuals, but in the activities of this group of individuals who are part of a group. According to the guidance function Nurihsan & Joseph (2009:16) is as follows:

a. Understanding, help the students to get a better understanding about himself and their environment. Each student are expected to develop their talent and to adapt the condition in the environment.

b. Prevention, the counselor effort to prevent any problem.

c. Development, counselors always trying to conduct conducive working environment to facilitates the students development.

d. Improvement, this guidance function was curative. This function is closely related to encouraging students who have been experiencing problems, such as personal aspect, social, learning and career.

e. Distribution, the counselor helps students to choose any activities, including extracurricular, department, and major.

f. Adaptation, this guidance functions in helping educational officer, counselor and lecturer, to adapt educational program, such as educational background, student interest, and ability.

g. Customization, guidance function in helping students to develop self-adaptation and construct educational program, school’s rule, religion norm.

The basic guidance program assumption using number game is as follows:

1. The Guidance Program through number game is an efforts to develop student’s imagination activity.

2. Number Game is a therapy method using clay to encourage counselling to express student’s feeling.

3. Using number game, counselor can facilitate student’s cognitive and affective development.

The Guidance Program using number game has its specific counselee. This program is aimed to 9 to 12 years old students. In this age, students are in developing phase, so that they need some cognitive and affective development facilities.

Counselor in Guidance program need some general competencies, as follows:

1. Good performance

2. Smart, creative, innovative, and productive.

3. Energetic, discipline, and independent

4. Respect, empathy, and tolerance.

5. Effective communication.

Beside the general competencies, Guidance program counselor need specific competencies, such as effective communication to the children and specific skill in number game, using number operation, addition, subtraction, multiplication, and division.

The steps of the guidance program using number game, as follows:

1. First Step (Introduction)
On the first 10 minutes, counselor open the session, then explain about the program’s objective, theme and benefit, counselor and participant contribution in guidance program. Besides that, counselor inform about the activity will be done and the instrument will be used in number game guidance program. Then, counselor open the question session to make clear what
participant have to do in the guidance program. The last in first step is preparing material for number game.

2. Second Step (Main Step)
This step is done in 35 minutes. Counselor, as a facilitator, explain about the number game rule. The participant do the game starts from the first step until the last step appropriate with the game theme. They will do the rule to operate the number. Children are expected to explore their imagination and their creativity in number by the game.

3. Third Step (Last Step)
This step is done in 15 minutes. In this step, counselee discuss about the game has been done. Participant express their opinion about the process and the achievement in the number game to reflect the mean of the game.

The guidance program can be done individually or in group based on the counselling problem. The successful indicator of the guidance program can be known from the behavior changes of the counselee, where the counselee show better changes and they can actualize their performance.

CONCLUSION
Number game is a guidance technique by operating number in mathematical number operation, such as addition, subtraction, multiplication, and addition. This game is often used in child guidance and counseling technique. It can facilitate children cognitive and affective development, especially to solve mathematical problem.

REFERENCE


Biodata

Aniek Wirastania is a lecturer of guidance and counselling department, University of Adi Buana Surabaya. She received his master degree under UPI Bandung Indonesia. Her major interest cover teaching rehabilitation counselling and counselling program for children.

Hanim Faizah is a lecturer in mathematics education department of Universitas PGRI Adi Buana Surabaya. Hanim was born in Sidoarjo on 29th of May 1988. Hanim was graduated from Universitas Negeri Surabaya on 2010, where she received a Bachelor Degree in mathematics. Hanim was also graduated her Master Degree in mathematics education from Universitas Negeri Surabaya on 2014.
THE ROLE OF WORKPLACE PASSION AS A MODERATOR ON THE EFFECTS OF WORKPLACE DEVIANT BEHAVIOR TO EMPLOYEES’ JOB SATISFACTION

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ABSTRACT

Employees’ workplace deviant behavior (WDB) generally happens in small and big organizations, including unpunctuality, taking a break longer, doing other things in working time, using different standards or procedures in working, using work properties for personal needs, marking-up organizational budgeting, being unfair as a leader, and socializing information that is different with the original sources. O’Leary-Kelly, Griffin, and Glew (1996) stated that WDB is an emotional response because of frustration with the work. On the other hand, employees with high level of job satisfaction and Work Passion Behavior (WPB) tend to have positive behaviors, and those who are not satisfied with the job tend to show negative behaviors (Lumley, 2011; Robbins, 1993:97). It is found out in this quantitative study that WDB significantly affects employees’ job satisfaction in government offices of Surabaya sub-districts; and the effect of WDB to employees’ job satisfaction is moderated by WPB. It is recommended to build and maintain good relationship between colleagues in working, to give meanings, and also to collaborate with other divisions/ departments and leaders for accomplishing the work in order to increase passion in the job, with also an improvement in the mechanism to monitor the attendance and break time.

Keywords: Workplace Deviant Behavior, Workplace Passion, Job Satisfaction

INTRODUCTION

In general, employees’ workplace deviant behavior (WDB) happens in small and big organizations, including unpunctuality, taking a break longer, doing other things in working time, using different standards or procedures in working, using work properties for personal needs, marking-up organizational budgeting, being unfair as a leader, and socializing information that is different with the original sources. Workplace deviant behavior generally becomes a threat for employees’ morality, and organizational and individual well-being including decreasing of job satisfaction, working commitment, work motivation, and productivity; and then it affects efficiency, effectiveness, and productivity of the organization (Srivastava, 2013). O’Leary-Kelly, Griffin, and Glew (1996) stated that employees as the target of workplace deviant behavior tend to quit, have stress problem, face productivity decreasing, have morality problems, lose working time or have less self-esteem, face fear increasing, and feel unsafe and uncomfortable in workplace. WDB becomes an emotional response that appears in a person that is frustrated with the work. The indicators used to measure WDB (Bennet and Robinson, 2000) are as follows:

1. Make the co-workers as jokes in the workplace
2. Speak rudely and wildly in workplace
3. Do or speak something related to race, ethnic, and region to the co-workers
4. Act rudely to the co-workers in workplace
5. Embarrass the co-workers
6. Take office properties (inventory) without permissions
7. Spend a lot of time to daydream than to work
8. Make mendacious documents for personal needs
9. Take a break longer than the set of time
10. Come late without permissions
11. Ignore leaders’ commands
12. Make the work intensity on purpose
13. Discuss secrets of the offices with others who don’t have interests

On the other hand, Work Passion Behavior (WPB) is individual consistency, positive emotional condition that gives meaning to prosperity (Srivastava, 2013). Employees that have work passion can have well-ordered, productive, and target oriented behaviors, and later on, that will create talents that the organization needs. Passionate spirit will create productive, energized, and loyal employees for the organization, but sometimes, it creates workplace deviant behavior (Srivastava, 2013).

Employees who have work passion are those who work hard, have positive emotion, and give meanings to humanitarian welfare based on the cognitive and affective appraisal of various jobs and organizational situation, in which those will create consistent behaviors and constructive work motivation (Zigarmi et al.: 2011). Next, Zigarmi et al. (2011) stated about Balmcard from the study, it which it is found out that there was a set of main factors that should be in the organizational environment in order for the employees to have work passion. Some of those factors are indicators to measure WPB including: meaningful jobs, autonomy, collaboration, justice, admission, growth, connections between colleagues and leaders. Significantly, work passion behavior becomes a moderator of the WDB effect on job satisfaction.

For most of the employees, work also fulfills the need of social interaction, so that having friendly co-workers can increase job satisfaction, further, leaders’ behaviors also affect employees’ job satisfaction. Besides, job satisfaction is one of the criteria to identify the health of the organization which is based on the human resources (Fitzgerald et al., 1994) and employees’ job satisfaction will affect the service that the employees give (Crossman & Abou-Zaki, 2003). Job satisfaction is the employees’ emotional and cognitive feeling to internal and external value of the job. According to Luthan (2008: 142-144), it is stated that job satisfaction has indicators: Pay, The Work Itself, Co-worker, Supervision, Promotion Opportunities, and Working Condition.

Moreover, if an organization hopes to have best performance from the employees through effort to create job satisfaction for the employees, the researches about WDB and WPB become very interesting to be conducted. This study has two research problems: “Does Employees’ WDB affect job satisfaction in government offices of Surabaya sub-districts?” and “Does WPB becomes a moderator of WDB effect on job satisfaction in government offices of Surabaya sub-districts?” Further, this study aims to measure and analyze the effect of WDB to employees’ job satisfaction in government offices of Surabaya sub-districts with WPB as the moderator.

In addition, based on the connection between theoretical and empiric studies of the variables as the focus of this research, the conceptual framework is created as follows:
RESEARCH METHOD

This study uses quantitative approach, in which this study is a kind of population study with all objects being observed to test a theory through research variables using statistic procedures (Jogiyanto, 2005:5). This study is intended to explain the effect between variables or the relationship that affects between variables using hypothesis testing or confirming the relationship of the effect between variables or constructs, in other words, an explanatory research that proves whether there is a relationship between variables or how a variable affects another variable being researched. Primary data are from questionnaires with the variables being researched: Workplace Deviant Behavior (X) as an independent variable, job satisfaction (Y) as a dependent variable, and workplace passion (Z) as a moderator variable. Secondary data are from all media as information sources.

The writer collected the data directly by visiting head offices as the objects of this study, which are South Jakarta and Surabaya government offices. The measurement of variable indicators X, Z, and Y uses Likert scales to measure behavior, opinion, and perception of a person or groups about a case or social phenomenon, with the range of 1 until 5. According to Sugiyono (2005: 80), population is a generalization of an area which consists of the objects or subjects that have certain quality and characteristics defined to be studied and to make a conclusion about them. The population in this study is employees in government offices of Surabaya sub-districts, 891 persons; and the sample is 75 persons in government offices of Surabaya sub-districts using accidental sampling technique. Sugiyono (2010) stated that quantitative research has criteria of valid, reliable, and objective, so that there should be validity and reliability testing to the data. To see the relationship between WDB and job satisfaction with WP as the moderator, Moderating Regression Analysis (MRA) model in the analysis technique is needed.

Table 1: Respondents’ Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Classification</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>30</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>45</td>
<td>60%</td>
</tr>
<tr>
<td>Educational Background</td>
<td>High School</td>
<td>39</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Undergraduate</td>
<td>26</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>6</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Working Period</td>
<td>&lt; 5 years</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>5 - 10 years</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>&gt; 10 years</td>
<td>71</td>
<td>95%</td>
</tr>
</tbody>
</table>

The respondents are dominated by females 45 persons or 60%. The highest number for high school educational background is 39 persons or 52%. The respondents are dominated by employees who work more than 10 years 71 persons or 95%. To make a descriptive scoring of each research variable, there should be categories made with interval scale based on the average. Interval scale = (Highest Score – Lowest Score)/ total numbers of the scales.
Interval scale = (5-1)/5 = 0.8

Table 2: Category Scoring Based on Scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Interval Scale Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00 – 1.80</td>
</tr>
<tr>
<td>Work Deviant Behavior (X)</td>
<td>Very low</td>
</tr>
<tr>
<td>Work Passion Behavior (Z)</td>
<td>Very low</td>
</tr>
<tr>
<td>Job Satisfaction (Y)</td>
<td>Very low</td>
</tr>
</tbody>
</table>

Table 3: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Deviant Behavior (X)</td>
<td>1.62</td>
<td>0.46</td>
</tr>
<tr>
<td>Work Passion Behavior (Z)</td>
<td>3.72</td>
<td>1.01</td>
</tr>
<tr>
<td>Job Satisfaction (Y)</td>
<td>3.80</td>
<td>0.83</td>
</tr>
</tbody>
</table>

According to the table above, each variable can be researched as follows:
1. The results of descriptive statistics for work deviant behavior (X) shows the average score 1.62 that shows a condition in which the average scores of employees’ work deviant behavior is very low. The score of standard deviation 0.46 shows that there are various levels of employees’ work deviant behavior in the percentage 28.40% comparing with the total average score.
2. The results of descriptive statistics for work passion behavior (Z) shows the average score 3.72 in which it shows a condition that the average score of employees’ work passion is high. The score of standard deviation 1.01 shows that there are various levels of employees’ work passion 27.15% comparing with the total average score.
3. The results of descriptive statistics for job satisfaction (Y) shows that the average score of 3.80 shows a condition in which the average score of job satisfaction is high. The score of standard deviation 0.83 shows that there are various levels of employees’ job satisfaction 21.84% comparing with the total average score.

Table 4: Variable Description of Work Deviant Behavior (X)

<table>
<thead>
<tr>
<th>Item</th>
<th>Indicators</th>
<th>Average</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1_1</td>
<td>I have ever made my co-workers as jokes in the workplace</td>
<td>1.63</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_2</td>
<td>I have ever spoken rudely and wildly in workplace</td>
<td>1.73</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_3</td>
<td>I have done or spoken something related to race, ethnic, and region to my co-workers</td>
<td>1.63</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_4</td>
<td>I have ever acted rudely to my co-workers in workplace</td>
<td>1.71</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_5</td>
<td>I have ever embarrassed my co-workers</td>
<td>1.72</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_6</td>
<td>I have ever taken office inventory without permission</td>
<td>1.49</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_7</td>
<td>I have ever wasted time to daydream than work</td>
<td>1.60</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_8</td>
<td>I have ever made a fake document for personal reasons</td>
<td>1.49</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_9</td>
<td>I have ever taken a break longer that it should be</td>
<td>1.72</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_10</td>
<td>I have ever come late without permission</td>
<td>1.73</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_11</td>
<td>I have ever ignored my leaders’ commands</td>
<td>1.60</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_12</td>
<td>I have ever slowed up my work intensity on purpose</td>
<td>1.55</td>
<td>Very low</td>
</tr>
<tr>
<td>X1_13</td>
<td>I have ever discussed about office secrets with others who don’t have interests</td>
<td>1.45</td>
<td>Very low</td>
</tr>
</tbody>
</table>

Based on the table above, the indicator of work deviant behavior that has the lowest score is related to the discussion about office secrets to others who don’t have interests, with the score 1.45. The indicators of work deviant behavior that have the highest score is related to speak
rudely and wildly in workplace and to come late without permissions, since both indicators have the highest average score 1.73.

<table>
<thead>
<tr>
<th>Item</th>
<th>Indicator</th>
<th>Average</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z_1</td>
<td>My job is meaningful for me.</td>
<td>3.77</td>
<td>High</td>
</tr>
<tr>
<td>Z_2</td>
<td>I fully have freedom in my job.</td>
<td>3.65</td>
<td>High</td>
</tr>
<tr>
<td>Z_3</td>
<td>Collaboration: I can collaborate with my co-workers from other departments when needed</td>
<td>3.76</td>
<td>High</td>
</tr>
<tr>
<td>Z_4</td>
<td>Justice: I can fully get justice in my job.</td>
<td>3.71</td>
<td>High</td>
</tr>
<tr>
<td>Z_5</td>
<td>Admission: I fairly get admission in my job.</td>
<td>3.68</td>
<td>High</td>
</tr>
<tr>
<td>Z_6</td>
<td>Growth: I get chances to develop my skills through training/autonomously to improve professionalism in my job</td>
<td>3.65</td>
<td>High</td>
</tr>
<tr>
<td>Z_7</td>
<td>Openness with colleagues: I have a good relationship with my colleagues relating to work accomplishment</td>
<td>3.79</td>
<td>High</td>
</tr>
<tr>
<td>Z_8</td>
<td>Openness with leaders: I have a good relationship with leaders relating to work accomplishment</td>
<td>3.75</td>
<td>High</td>
</tr>
</tbody>
</table>

Based on the table above, the indicators of work passion behavior that have the lowest scores are related to have fully freedom in the job and to have chances to develop skills in order to improve professionalism, with the lowest average score 3.65. On the other hand, the indicator of work passion behavior that has the highest score is related to a good relationship with colleagues in the work accomplishment context, with the highest average score 3.79.

<table>
<thead>
<tr>
<th>Item</th>
<th>Indicator</th>
<th>Average</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y_1</td>
<td>I am satisfied with my monthly salary</td>
<td>3.79</td>
<td>High</td>
</tr>
<tr>
<td>Y_2</td>
<td>I am satisfied with my job as an employee</td>
<td>3.91</td>
<td>High</td>
</tr>
<tr>
<td>Y_3</td>
<td>I am satisfied with my co-workers that I have</td>
<td>3.73</td>
<td>High</td>
</tr>
<tr>
<td>Y_4</td>
<td>I am satisfied with leaders’ supervision</td>
<td>3.89</td>
<td>High</td>
</tr>
<tr>
<td>Y_5</td>
<td>I am satisfied with chances of job promotion given</td>
<td>3.80</td>
<td>High</td>
</tr>
<tr>
<td>Y_6</td>
<td>I am satisfied with the working environment</td>
<td>3.68</td>
<td>High</td>
</tr>
</tbody>
</table>

Based on the table above, the indicator of job satisfaction that has the lowest score is related to satisfaction with the working environment, since it has the lowest average score 3.68. On the other hand, the indicator that has the highest score is related to have a job as an employee in Surabaya government office, since it has the highest average score 3.91.

**VALIDITY AND REALIBILITY TESTING**

Validity and reliability are important concepts in measurement, because this research uses continuous analysis instrument. A questionnaire is stated as valid, if the questions in the questionnaire can express something being measured by that questionnaire (Ferdinand, 2006:276). Scale or data measurement instrument and data can be stated as reliable if they can consistently give the same results (Ferdinand, 2006:278)

Table 7: The Results of Validity and Reliability Testing
According to Leech et al. (2015:95), if the score of item total correlation is negative or too low (below 0.30), so the item statement is stated as invalid. The results of the testing show that all variable indicators of work deviant behavior (X), work passion behavior (Z), and job satisfaction (Y) are stated as valid, since the item total correlation scores are above cutoff score 0.30.

For the reliability testing, Ghozali (2009:46) stated that a construct or variable can be stated as reliable if it produces Cronbach Alpha score above 0.60. The testing results show that work deviant behavior (X) variables get Cronbach Alpha scores 0.935, work passion behavior (Z) 0.976, and job satisfaction (Y) 0.930. Since each of them gets Cronbach Alpha score more than cutoff score 0.60, the variables are reliable.

**NORMALITY TESTING**

A distribution is stated as normal, if the data are not oblique-angled to the right or left (symmetrical with skewness score 0), and also they are ideally pointed (Kurtosis score 0). Data spreading are varied in negative or positive skewness and kurtosis. Data normality testing is used to find out whether the data follow normal spreading or not, using Kolmogorov Smirnov analysis. If the residual significance scores (error probability score or sig) are more than 5% or 0.05, data are distributed normally.
Based on the results of normality testing, it is found out that in statistics, Kolmogorov Smirnov score has significance standard above 0.05, which is 0.637. In this case, the score meets the criteria of normal data distribution (Ghozali, 2001:77).

**REGRESSION MODEL DEVIATION TESTING**

In regression model, there are some basic assumptions that create linear estimator which is unbiased and the best of regression model got from ordinary least square method. By fulfilling that assumption, the results are more accurate and closed to or the same with reality:

1. No multicollinearity between independent variables
2. Varieties of all disturbance errors are the same or there is no heteroscedasticity (monoscedasticity)

Multicollinearity means that between independent variables in regression model are correlated. According to Hair et al. (2014:205), it is stated that to identify whether there is multicollinearity or not, it can be seen from the score of VIF (Variance Inflation Factor). If VIF is above 10, that variable is indicated to have multicollinearity:

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (Work Deviant Behavior)</td>
<td>2.192</td>
<td>No Multicollinearity</td>
</tr>
<tr>
<td>Z (Work Passion Behavior)</td>
<td>2.403</td>
<td>No Multicollinearity</td>
</tr>
</tbody>
</table>

Based on the table above, the score of VIF of all independent variables are below VIF crisis score 10, so that the regression model doesn’t have multicollinearity syndrome.

Heteroscedasticity means that variable variants are not the same for all of the observation. To find out whether there is heteroscedasticity or not, so that it can be seen from Spearman Rank correlation coefficient between independent variable and dependent variable. If error probability scores (Sig) are above the significant level 0.05, then no heteroscedasticity occurs:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Rank Spearman</th>
<th>Signifikansi</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (Work Deviant Behavior)</td>
<td>-0.018</td>
<td>0.879</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>Z (Work Passion Behavior)</td>
<td>0.096</td>
<td>0.413</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>XZ (interaction between WDB and WPB)</td>
<td>-0.074</td>
<td>0.525</td>
<td>No Heteroscedasticity</td>
</tr>
</tbody>
</table>

The results of heteroscedasticity show that all independent variables do not have significant relationship with the dependent variables, in which Spearman Rank Correlation Coefficient significance scores for all independent variables are above significance standard (α) 5%.

**MODEL ANALYSIS**

This research uses moderation regression analysis, in which variable data X and Z should be transformed into centered data, by decreasing mean score of each respondent with the total mean of each variable. Besides data transformation, simple regression is to find out variable main effect in work deviant behavior (X) to job satisfaction (Y):
Table 11: Results of Regression Analysis of Work Deviant Behavior (X) to Job Satisfaction (Y)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient (B)</th>
<th>Error Standard</th>
<th>Standardized Beta</th>
<th>t score</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (Job Satisfaction)</td>
<td>-1.384</td>
<td>0.141</td>
<td>-0.755</td>
<td>-9.845</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>= 3.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>= 0.570</td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on the results of regression analysis, the linear regression model equation is:

\[ Y = 3.799 - 1.384X \]

Those results of regression analysis show that constant has the score of 3.799, in which there is regression line tangent intersection with axial line Y that shows the level of job satisfaction (Y) when the variable of work deviant behavior (X) has 0 score. The variable of work deviant behavior (X) has negative regression coefficient, in which if the variable of work deviant behavior (X) increases one unit, job satisfaction decreases as big as the regression coefficient score 1.384.

The results of regression analysis also shows that how big the contribution of the variable of work deviant behavior (X) to the variable of job satisfaction (Y) is shown by how big double determination coefficient \( R^2 \) 0.570. This means that 57% of the level of job satisfaction (Y) is determined by the change of work deviant behavior (X) variable. The rest 43% of the job satisfaction level is still determined by other variables being researched.

The results of \( t \)-test analysis with significance standard \( \alpha \) 5% explain that the variable of work deviant behavior (X) has significant effect to the variable of job satisfaction (Y), because it has error probability level (sig.) 0.000 in which it is below significance standard \( \alpha \) 0.05.

After proving that the variable of work deviant behavior significantly affects job satisfaction (Y), the second regression analysis model is developed to theoretically prove the effect of variable of work deviant behavior (X), variable of work passion behavior (Z) as the moderator, and also the interaction between variables of work deviant behavior and work passion behavior (XZ) to job satisfaction (Y). The results of the second regression model analysis are as follows:

Table 12: Results of Regression Analysis of Work Deviant Behavior (X), Work Passion Behavior (Z), and the Interaction between Work Deviant Behavior and Work Passion Behavior (XZ) to Job Satisfaction (Y)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient (B)</th>
<th>Error Standard</th>
<th>Standardized Beta</th>
<th>t-test</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (Work Deviant Behavior)</td>
<td>-0.550</td>
<td>0.162</td>
<td>-0.300</td>
<td>-3.396</td>
<td>0.001</td>
</tr>
<tr>
<td>Z (Work Passion Behavior)</td>
<td>0.435</td>
<td>0.077</td>
<td>0.525</td>
<td>5.677</td>
<td>0.000</td>
</tr>
<tr>
<td>XZ (Interaction between WDB and WPB)</td>
<td>0.252</td>
<td>0.118</td>
<td>0.152</td>
<td>2.142</td>
<td>0.036</td>
</tr>
<tr>
<td>Constant</td>
<td>= 3.883</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>= 0.737</td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on the results of moderation regression analysis, double linear regression model equation is as follows:

\[ Y = 3.883 - 0.550X + 0.435Z + 0.252XZ \]

That double linear regression model explains the following cases:

1. The constant score 3.883 shows tangent intersection of regression line with Y axial line that shows the level of job satisfaction (Y), when all independent variables, work deviant behavior (X), work passion behavior (Z), and the interaction between work deviant behavior and work passion behavior (XZ) equal 0.
2. The variable of work deviant behavior (X) has negative regression coefficient, in which that means that if the variable of work deviant behavior (X) increases one unit, job satisfaction decreases as big as regression coefficient score 0.550, with the assumption that the other independent variables don't change.

Based on the results of regression analysis, the linear regression model equation is:

\[ Y = 3.799 - 1.384X \]
3. The variable of work passion behavior (Z) has positive regression coefficient, in which that means that if the variable of work passion behavior (Z) increases one unit, job satisfaction increases as big as the regression coefficient score 0.435, with the assumption the other independent variables do not change.

4. Interaction variable between work deviant behavior and work passion behavior (XZ) has positive regression coefficient, in which that means that if interaction variable between work deviant behavior and work passion behavior (XZ) increases one unit, job satisfaction (Y) increases as big as regression coefficient score 0.252, with the assumption that the other independent variables do not change.

The results of regression analysis also shows that the contribution of independent variables of work deviant behavior (X), work passion behavior (Z), and interaction between work deviant behavior and work passion behavior (XZ) to the variable of job satisfaction (y), that adjusted R square (adjusted R²) is shown in 0.737. This means that 73.7% of job satisfaction level (Y) is determined by the changes of all independent variables being inserted in regression model. Thus, the rest 26.3% of job satisfaction level (Y) is determined by other variables being researched.

The results of t-test analysis with significance standard 5% explain the cases:
1. The variable of work deviant behavior (X) gives significantly negative effect to the variable of job satisfaction (Y), because the error probability score (sig) 0.001 is below the level of significance 0.05.
2. The variable of work passion behavior (Z) gives significantly positive effect to the variable of job satisfaction (y), because the error probability score (sig) 0.000 is below the level of significance 0.05.
3. The interaction variable between work deviant behavior and work passion behavior (XZ) gives significantly positive effect to the variable of job satisfaction (Y), because the score of error probability (sig) is 0.036 which is below the level of significance 0.05.

To determine the moderator effect, the specific values used to explain moderation effect of regression model being analyzed should be determined. The interaction between work deviant behavior and work passion behavior (XZ) shows that the regression of job satisfaction (Y) on work deviant behavior depends on the specific value from work passion behavior (Z).

According to Cohendalam Ferdinand (2006), the procedure that can be used is basic average scores of centered data in the analysis. Therefore, three common alternatives that do not occur are as follows:
1. High condition (Z_H) = one standard deviation value is above the average score.
2. Medium condition (Z_M) = mean scores of moderator variable.
3. Low condition (Z_L) = one standard deviation value is below the average score.

Using this method, it can be chosen from one of moderation variable levels, and based on that, various equations of simple regression, from dependent variables on an independent variable for a specific moderator value, are produced.

In this research, variable that is hypothesized as moderator variable is work passion behavior (Z), therefore, regression model equation can be transformed into:

\[ Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 XZ \]

Based on the equation of moderation variable becomes:

\[ Y = (\beta_1 + \beta_3 Z) X + (\beta_2 Z + \alpha) \]

Based on the results of the regression analysis with moderation variable, the regression equation is:

\[ Y = 3.883 - 0.550X + 0.435Z + 0.252XZ \]

The results of descriptive statistic analysis on centered data, each independent variable shows mean score and standard deviation as the followings:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Deviant Behavior (X)</td>
<td>0</td>
<td>0.46</td>
</tr>
<tr>
<td>Work Passion Behavior (Z)</td>
<td>0</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Table 13: The Results of Descriptive Statistics (Centered Data)
Work passion behavior (Z) is moderator variable, so the equation used is:

\[ Y = (-0.550 + 0.252 Z) X + (0.435 Z + 3.883) \] if:

1. \[ Z_{low} = -1.01, \quad \text{so} \quad Y = 3.44 - 0.80X \]
2. \[ Z_{medium} = 0, \quad \text{so} \quad Y = 3.883 - 0.550X \]
3. \[ Z_{high} = +1.01, \quad \text{so} \quad Y = 4.32 - 0.30X \]

This conclusion shows that there is conditional factor. As the indicator that work passion behavior (Z) is moderator variable. Moderation equation produced from the variable of work passion behavior (Z) is a moderator variable.

Moderation equation produced from the variable of work passion behavior (Z) as the moderator variable is:

1. If \[ Z_{low} = -1.01, \quad \text{so} \quad Y = 3.44 - 0.80X \]
2. If \[ Z_{medium} = 0, \quad \text{so} \quad Y = 3.883 - 0.550X \]
3. If \[ Z_{high} = +1.01, \quad \text{so} \quad Y = 4.32 - 0.30X \]

The condition of \( Z_M \) shows the equation when work passion behavior (Z) is on the average level, on the other hand, \( Z_L \) and \( Z_H \) shows when work passion behavior (Z) is low and high. Because the focus is on how strong the effect of work deviant behavior (X) to job satisfaction (Y) when work passion behavior (Z) is low and high, so that the analysis on how strong the moderation effects can be seen on the change of regression coefficient of work deviant behavior(X), so that how big the moderation effect is as follows:

1. Positive moderation effect = \((-0.30 - (-0.550)) / (-0.550) = -45\%\)
2. Negative moderation effect = \((-0.80 - (-0.550)) / (-0.550) = 45\%\)

Based on the research results, it is found out that low work deviant behavior and high work passion behavior will cause higher job satisfaction.

**HYPOTHESIS TESTING**

First hypothesis states that work deviant behavior significantly affects job satisfaction. Based on the results of regression analysis, it can be seen that \( t \) significance score (Sig) is 0.001 lower than significance standard score (\( \alpha \)) 5% (0.05), so that work deviant behavior (X) significantly affects job satisfaction (Y). Therefore, first hypothesis stating that work deviant behavior significantly affects job satisfaction is accepted.

Second hypothesis states that the effect of work deviant behavior to job satisfaction is moderated by work passion behavior. Based on the results of regression analysis, it can be seen that \( t \) significance score (Sig) is 0.036. Since the \( t \) significance score (Sig) 0.036 is below significance standard score (\( \alpha \)) 5% (0.05), so that work passion behavior is a moderator of the effect of work deviant behavior to job satisfaction. Therefore, second hypothesis stating that the effect of work deviant behavior to job satisfaction is moderated by work passion behavior is accepted.

**DISCUSSION AND CONCLUSION**

The result of first hypothesis testing is that WDB significantly affects employees’ job satisfaction in government offices of Surabaya sub-districts. This finding is linear with Srivastava’s study (2013), Lumley’s (2011), and Robbins’ (1993:97) stating that employees with high level of job satisfaction commonly tend to have positive behavior, and those who are not satisfied tend to have negative behavior to their job. The higher the level of work deviant behavior to the job, the lower the job satisfaction will be, in the contrary, the lower the level of employees’ work deviant behavior to the job, the higher the job satisfaction that the employees will have. The finding shows the condition that the average employees’ work deviant behavior is very low, and the average employees’ job satisfaction is high. Employees’ work deviant behavior has very low average; in contrast, employees’ job satisfaction has high average.

The result of second hypothesis testing is that the effect of WDB to employees’ job satisfaction in government offices of Surabaya sub-districts is moderated by WPB. This finding is linear with the result of Srivastava’s study (2013) stating that WPB strengthen the effect of WDB to job satisfaction, and WDB negatively affects job satisfaction, in which low work deviant behavior and high work passion behavior will cause higher job satisfaction. If the employees have passion in the job, it will create a talent chosen and needed by the organization,
so that the employees become loyal to the organization and productive. The occurrence of high WPB with low WDB will increase job satisfaction.

Based on the results of this study, employees have passion in the job because of the good relationship with the colleagues, work meaning for the employees, collaboration with the other divisions/ departments, and good relationship with the leaders. Work passion stated increases employees’ job satisfaction. This finding is linier with the study by Zigarmi et al. (2011) stating that employees who have passion in their job are those who are hard working, have positive emotion, and give meanings to humanitarian welfare that comes from cognitive and affective judgment in various job and organizational situations, which produces consistent behavior and constructive work motivation.

The recommendation for government offices of Surabaya sub-districts is that there is a need to build and maintain good relationship between colleagues in working, to give meanings to the job for the employees, and also to collaborate with other divisions/ departments and leaders for accomplishing the work in order to increase passion in their job. A few employees’ work deviant behavior is found out in their job, which is being late to come without any permission before and taking a break longer than it should be, so that it is recommended to have an improvement in the mechanism to monitor the attendance and break time.

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Biodata

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HUMANIST EDUCATION IN SOCIAL-SOCIALIST MARXIST APPROACH (A SELF-CRITICISM AGAINST THE NATIONAL EDUCATION SYSTEM)

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ABSTRACT
The issue of commercialization and liberalization of education due to the influence of capitalism has cut off the lifeblood of education in Indonesia. The problem is the capitalist model of education that has made education become elitist, so that only those who are financially able are able to obtain decent and quality education. The indicators are associated with the high cost of education that cannot be reached by those who are economically disadvantaged. No wonder this systematic attempt justifies the impression that the poor are banned from school. This paper aims to provide a review and explanation objectively about the patterns and methods of social education with Marxist socialist humanist approach. At least as a counterweight to the education system of capitalism that is now pervasive in the area of education in Indonesia. In this paper proposed two formulas problems, namely: First, "how are the principles of social humanist education by Marxist-socialist approach"? Second, "how are the pattern and methods of social humanist education by Marxist-socialist approach in shaping the character of the students"? From the results of this self-criticism it is concluded that, first, as a result of the education system oriented to the interests of capitalism and liberalism, result in not all Indonesian children obtain educational services from the State. Second, that the philosophy of education has shifted from "the intellectual life of the nation" and "education for all, turn out to be just educating people who have capital and own capital.

Keywords: Education humanist, Marxist-Socialist approach, self-criticism, the national education system

I. INTRODUCTION
The world of education in Indonesia to date, in a situation of concern, because of weak root level where it rests. In general, education tends to ignore the search for ideological choice, so the footing idealistic assumption is no longer a necessity. As a result, the implementation of educational purposes only aim to fulfill the practical and pragmatic. The implications of increased globalization and capitalism, create a frame of education trends nature chasing capital. Departing from this concern, the authors offer re-ideologise the importance of education to the education of children Indonesia is not only addressed to the interests of the industry and serve the needs of the market.

Reideologise education offered is to be started by dismantling the logic of postmodernism that swept the world and became a model that is a trend. Reason think postmodernism become mainstream in every activity of human thinking. In a society postmodernism, philosophy and science is no longer a question of how to understand the objects, but turning to how to understand the language issue, the structure of the mind, illusion, and meaning. Education does not escape the attention of postmodernists. The orientation of the postmodernists’ education is ultimately the interests of capitalism that ignores the role of philosophy as the mother of critical thinking. Impacts eliminate the totality of learning. Students in an educational perspective is considered full ideologically capitalism that would force them to serve the ideological interests. Yet every ideological goal itself always suspected that the students will be controlled by political interests. Therefore, the perspective of capitalism would deprive students of a political goal that resulted in more and enlarge the nature of individualism.
The generation born from educational phenomena like this the politicization educational institution that produces graduates who do not have strong roots in the reality of the character of his world, and tend not to have empathy. They only go to school for the benefit of its economic destiny alone. Therefore, the offer provided in this paper is to study Marxist-Socialist as opponent of capitalist education. The idea and concept of education is rooted in Marxist-Socialist thought-dialectic materialism formulated by Karl Marx. Marx was not only a philosopher or thinker who consistently towards improving the fate of oppressed people (workers and commoners). But he is also a true educator. Marx educate people for an awareness and awakening escape from persecution. Marxist-Socialist educational objective is to bring back the human consciousness to be able to live according to the demands of humanity. Therefore, efforts should be done, is the first, which awaken and liberate education, so that students’ free and unfettered in the world. Secondly, education must be implemented in an effort to meet the humanitarian ideals fair and prosperous. Third, education must create a relationship of equality that negated exploitative relationships (capitalism).

II. WRITING METHOD

The method used in writing the paper is the method library. These methods include qualitative descriptive part of research. Writing materials taken from books, magazines, articles in scientific journals, newspapers, and other research reports pertaining to the subject of writing. Stages of work from this library method, is heuristic, criticism, interpretation, and presentation (Busha & Stephen, 1980).

III. RESULTS AND DISCUSSION

In practice, it is necessary exemplified how the Marxist-Socialist education undertaken in Venezuela, Bolivia, Brazil and Cuba that have become a barometer of socialist countries (Freire, 2005; 1993). The principle of education which emphasizes that it is not just a rich kid who has the power to be able to enjoy education. But all boys and girls, rich or poor, from the village or town, all of them should be able to enjoy education (Soyomukti, 2008). Therefore it is important and urgent to promote big ideas on the principle of education as a Marxist-socialist counter attack from capitalist education (Nuryanto, 2008, 15-16). Marxist-socialist approach to education can be its own negation of the principle of national education is currently ongoing under the influence of the hegemony of global capitalism. Understand that turned miserable and make not all the children in this country has access to proper education.

In education initiated the Marxist-Socialist, Marx has been unmasked, that the basis of the motion history of the world education system is determined by the capital. This theory is called "economic determinism". Marx forecast that has a real practice in Indonesia, with the implementation of education policy in the form of Law on Education Legal Entity (UU-BHP) and the National Examination (UN). It is the embodiment of an affair between the worlds of education with the interests of capital. Law-BHP open access to practice capitalism in the field of education. Educational institutions are no longer a media transformation and instrument humanizing value, but becomes wetlands for education managers to raise capital.

Status of school bureaucracy, Head of Department, bureaucrats campus, the Rector and his staff, not unlike investors who only think about how profits can be obtained by the learner. Educational institutions now almost equal to the market. The difference, if the market sells basic daily needs, then sell the school or university education services. Under these conditions the educational institutions together with corporations who think only in profit (Bowles, 1976; Faqih, 2002a; 2002b). As a result, not surprising, that the cost of education becomes increasingly expensive. At the present time, it is difficult for parents find the cost of education that's affordable for the lower middle class. The more modern facilities, school or college, the greater the money must be spent by parents of learners.

Historically, the seeds of capitalism and pragmatism education in Indonesia has surfaced in the New Order era, which is oriented to the accelerated development of the material, and not the development of humanity. Economic growth is pursued without regard to humanitarian aspects. The impact, the institution as a humanizing media savvy generation to be born, educated, moral turned out to be chained. Vocational schools are built, such as vocational
schools (SMK) both are oriented in the world of machines, electrical, architecture, office complex administration, accounting, secretarial, and the like, was the fulfillment of a desire lust capitalism. The emphasis of pragmatic technical skills is a threat to the future of humanity, because education will give birth to people who are not sensitive to the reality of the lives of his people. Pragmatism only scored generation who want to quickly get a degree and obtain a prestigious job, but not in character and have empathy. Therefore, the importance of the presence of Marxist-Socialist education is an education counterpart capitalist ideology which has been the education system. Ideology Marx is the form of a lawsuit over the inclusion of cultural capital in the education body.

The principle of Marxist-Socialist Humanist Education

In the education system of the Socialist Marxist-Humanist, the purpose of education is to build an enlightened human character, which is a mental condition that is required to build a society that is characterized by progressive, egalitarian, democratic, equitable, and sided with the oppressed. According to Marx, not wetlands to collect profits, but rather as an instrument to free humanity from the shackles of dehumanization and put a man in the true essence of human dignity (Freire, 1971a). Marxist-Socialist, idealize the creation of critical education, education radical, revolutionary and rational education, which is capable of printing man who would fight for the oppressed, the poor and marginalized. Education trapped in capitalism-pragmatism, is the exploitation of educational institutions (Agger, 1992).

According to Marx, capitalism has created internal economic irrationalities, namely the concentration of economic wealth at the expense of working people cannot consume commodities they produce (Budiman, 2004). Forms of social control in today's industrial society, it is not done on the physical aspect or coercion, but through subtle oppression, so that people are not aware that they are oppressed and do not assume that such conditions are not normal. Why? Because of this situation allows the degradation on critical thinking due to the massive expansion of technology and media. The reason is what makes the flow of critical education Frankfurt distract him from the political analysis of the economy to a critical analysis of the use of instrumental reason in modern societies.

Method Socialist Marxist-Humanist Education

In the method of the Marxist-Socialist Humanist education, education emphasizes the aspects of "how to think" rather than on the aspect of "what to think". Aspects of emphasis on what to think or learning materials is important, but the process or methodology to approach the learning materials that are much more important level. Thus, ways of thinking, debate, argue, appreciate other people's opinion, during the learning period is far more important than the learning material itself. Because in the process that's going to happen criticism, exchange of ideas, ideas, mutual respect, and give an assessment of the science.

This process is a democratic media dialogical learning in the classroom. The knowledge gained in the classroom in and not obtained instantaneously, but through a process of selection and joint reflection between teachers and students, lecturers and students. Students are encouraged to always question the knowledge that is in the text or presented by the teacher. Knowledge is not the same as the entity that is concentrated through a process that is not value free. (Freire, 1971b). Therefore, there is no bias and interests of a particular ideology. Science should be placed on the criticism to be constructed jointly between teachers and students. This is where teachers and students engage collectively in science education (Freire, 2001).

Dialogical method like this (problem posing method), the learning process is a means of humanization, the means to find the identity as a human being, and a means for the liberation of humanity. Without dialogue is not possible to create a true education. But still it must be remembered, any dialogue about a science or values in the classroom, must be sterile of an effort to reach consensus. This meant that there was an opportunity for students to think through his own perspective (Freire, 1985; 1987). In the absence of consensus, they will compare and 'banging' knowledge gained in the classroom, at home, in the media, in society, and in his
neighborhood. A process of comparing experiences and reflections, so as to make the students capable of critical thinking.

Dialog will generate awareness process. Konsientisasi is a process in which humans have "critical awareness" so that they can look critically at the social contradictions that exist around them and also able to change it. Critical education of the view that the purpose of education is to increase students' awareness of the magical consciousness toward critical consciousness.

In the realm of magical consciousness, humans have the ability to see the problem, but they do individualization or privatization of the problem. Issues considered to arise from itself or from outside himself. While at the stage of critical awareness, the issue has become very complex because it was seen as a structural problem. Humans at this stage is able to see the social contradictions that occur in the community, and make criticisms against him, and be able to turn it into an egalitarian, fair and humane. This critical awareness is spearheading to create what is referred to by Habermas with "critical mass and strengthen public sphere (Habermas, 1971).

Basic philosophy of education Marxist-Socialist, is criticism based on the following assumptions: a) man is believed to have the capacity to grow and change, because it has the potential to grow, learn, and equipped with the capacity for thinking and self-reflection; b) human beings are not perfect, has ontological and historical call for a more perfect human being; c) human language Laukshear Colin, are creatures that live authentically praxis, only when engaged in the transformation of the world (Salim, 2007).

The main task of education is to deliver students into subjects or actors, not objects. To achieve that goal, the process should be taken to implement the two movements, namely: First, raising the awareness of students. Second, transforming the social structure that makes repression took place. Because the human consciousness dialectically proceeds between themselves and the environment. Students had the potential to grow and affect the environment, but can also be influenced by and shaped by the structure of the place in which the student or the child grows and develops. For that emancipation and transcendence level of consciousness should involve two earlier movements (Hardiman, 1993).

The strength of the Marxist-Socialist educational paradigm is located on a sharp critical to dissect the phenomenon of social injustice and inequality. Critical educational paradigm model of the Marxist-Socialist thick with the perspective of social class relations in the educational process. The analysis of the relations between social classes will provide a firm basis for understanding the system of injustice of the New Order, the perspective is almost certainly taboo as a means of scientific analysis. The government systematically shut down almost all the critical reasoning that invites people to dismantle injustice in society. Almost all small communities victimized and injustice dominant social class, so that if a class analysis only as a tool of struggle of the poor (Wahono, 2001). Class analysis is one of the tools of critical educational paradigm in development, education can become the unit of analysis in order to understand and dismantle the widespread social injustice.

Curriculum, Learning and Culture positivism

Culture positivism, have the view that knowledge is disseminated to students is a process-oriented knowledge of how the world community adaptability to the industry, and ignores critical aspects as well as the expense of subjectivity, which is the ability to view the world critically.

Peter Mclaren, as quoted Barton (2001), suggests there are three effects of capitalism on education, namely: 1) the relationship between capitalism and urban education has led educational practices in schools more supportive of economic control by the elite classes; 2) the relationship between capitalism and science has encouraged the development of science that seeks only to get profit compared to creating a better life; 3) affair between capitalism and education, capitalism and science led to the foundation of science education changes with emphasis on the value of corporations at the expense of values of social justice and human dignity.
Modes of thought produced by the culture of positivism is a technocratic rationality which has two main characters, namely conformity and uniformity. Conformity lead students to be passive and adaptive to the text (textbooks) and context (reality). Passivity and adaptive potential to degrade the critical thinking of students. For the text and the context will be accepted as it is, without reserve, and without criticism (Kartono & Dawn, 2004). As a result, there is no dialectic of science; knowledge production ensued in one direction. Besides conformity, technocratic rationality also has uniformity characters who have contributed to creating man and society that has only a single dimension.

Technocratic rationality disseminated through various agencies, such as schools that aim to degrade the development potential of the students in the technical aspects of self-development material and shift the students who are moral and ethical. Technocratic rationality does not build the critical reasoning is very necessary for a student to understand the world around them. The rationality of technocratic emphasis on the pragmatic with the slogan "what is", but did not give attention to the critical idealist with the slogan "what should and can be". As a result, the value of pragmatic technical corporation precedence, while the moral-ethical values marginalized (Giroux, 1982).

Education curriculum in view of the Marxist-Socialist, was one of the medium used to produce positivism dominant culture, as called for by Giroux with the term "hidden curriculum."

"Hidden curriculum in school refers to the norms, values and subconscious attitudes that are often subtly transmitted through social relationships at school and classroom. With the emphasis on conformity, passivity and submission, into one of the hidden curriculum of socialization powerful media used to produce the type of individual who receives social relationships and power structures in which they work (Giroux, 1983).

In the process of learning model of technocratic thinking, knowledge defined and taught to students by emphasizing mediation. Knowledge is regarded as something finite, so the rated only as far as it is beneficial to serve the pragmatic technical interests. Knowledge is considered an objective, impersonal, has universal validity. Learning submitted no dialogue, so there is the impression that science and the reality it has only one dimension. The implication, of learning that takes place in the school simply the imposition of knowledge from those who know everything, namely teachers, and to those who are considered not know everything, and do not understand something, namely students. The learning process in schools only prioritizes how to own and accumulate knowledge, and not how in order to understand, criticize, produce and use knowledge as a tool to change reality (Allman, 1999; Giroux, 1993).

Rational technocratic, no doubt contributed in weakening the power of reason critically-reflective human requirements to participate in social life. Moreover, it also ignores the relationship between knowledge, power and politics. While the learning process in the perspective of Marxist-Socialist, precisely oriented to build up a critical stance on the self-reflective learners. Practical interest-pragmatic short-term stay behind for a while. Critical-reflective attitude not only towards science presented in class, do not be naïve in the transfer granted without going through the selection process and reflection shared between teachers and students. Teachers and students should be involved together in producing knowledge (Freire, 1987; Nuryanto, 2008).

Education is like a two-sided sword, which can be used as a means of domestication or liberalization, and the other as a means of production or reproduction of social class. It all depends on who interpret and practice it. Marxist-Socialist view of critical education should be understood as a social media class mobility. Is able to be media education to produce a new social structures or even only produce social structures that already exist? This can be answered by using the "theory of social reproduction" of Bowles and Herbert Gintis (1976), that the values and practices of teaching in schools is basically a mirror of economic organization. Social relations in schools reflects social relations as production. For example, the teacher has the authority to determine the goals and activities for his class, as manager of the company who has the authority to set the agenda and objectives for the economic production workers. Students and workers positioned as an object in decision-making. Students and workers are motivated by
external rewards. Pupils or students with grades and salary workers. Students are alienated from the results and the learning process, as well as labor and alienated from the working process.

Bowles and Gintis Studies show that the relation between school and social injustice, and between school and social reproduction. The argument is that almost all the cases showed that the majority of children of the upper middle class going into the class of the same social class when they later grow up. In contrast, children from lower classes will also return to its original position when the social class they mature later. Why does this happen? Because the children of the upper middle class had the capital to get a good education with sufficient educational facilities. While children from lower social groups do not have the capital or the opportunity to get a decent education. They will also return to his social class young adults. Likewise, children of the community group poor, definitely marginalized and joined also by the social class of their own people who are poor as an adult. This clearly shows that the schools actually have contributed in producing the position of students and maintaining the social class hierarchy in society.

Through this approach, it appears conclusively that schools serve only serve the interests of the dominant society, and perpetuate the social structures that exist .To that the originator of this theory argue that education reform is only limited influence, if not associated with the problems of structural power and economic injustice. Therefore, if we do not want the school merely a means to sustain and produce status quo, then the overall economic system must be changed.

Although this theory was nice to see the sociological practice of education in Indonesia, but has drawbacks. First, it is not able to explain the fact that some children from lower-class groups capable of moving from middle or upper class become when they grow up, or vice versa. Second, this theory only explains the process of reproduction from one point of view or monolithic, as teachers and students are passive participants in the educational process. Whereas the power relationship between the dominant and subordinate group it is asymmetrical. Third, do not offer the school as a medium of resistance against the dominant classes. In the first criticism, it should be recognized no social class mobility, there is a possibility of transformation over the lower-middle class. But the possibility of such mobility is still relatively small in number and limited, not significant. There is no empirical evidence, but the social reality has been a lot of talk. Although there is a certain percentage for example from a poor family who managed to get enough education, but does not guarantee decent work. Because to get a job is not only determined by the level of education, but also a social relationship. Usually poor families are very weak in this social capital.

**Humanist Socialist Education for Indonesia?**

Socialist-humanist education is indispensable in Indonesia, because socialism is the foundation of the Republic of Indonesia that has been built by the founders of the nation. These ideals are very objective and based on the historical foundation of the historical development of humanity. History has recorded that a wide variety of national revival to build a nation of character be the main objective. The revolutionary character of the Indonesian nation emerged during the national movement as a method of thinking Marxist-Socialist leaders spread throughout the national movement activists, which then affects the student, students, and workers, journalists, reporters through the medium of books and newspapers. This fact can be seen in the comments of the legendary figures of national movements Tan Malaka. Whereas, if the modern knowledge based on scientific outlook widespread among the people, the progress it will happen very quickly as well. Not surprisingly, the “Madilog” Tan Malaka wrote as follows: "If education in schools resting directly on society and the universe, then the necessary knowledge of our young men and women, knowledge is based on the fact that a legitimate and noble, can be embedded firmly. If that knowledge on to boast with language and literature, by sport based on the spirit and faith raises a thick, resilient; and if our society is no longer based on exploitation and oppression, equal opportunity for each person, then education will get the floor was lush and firm. (Tan Malaka, 1999)

Through education model like that, then the new consciousness will be more readily accepted than a formal school only accommodate children who are educated gentry’s devoted to
the Dutch colonial administration. Nonetheless, many children from the class of gentry who finally willing to accept literature and ways of thinking and acting model of Marxist-Socialist. It is they who always emphasizes the revolutionary struggle to bring Indonesia to the national independence, called Bung Karno as an independent in the economic, political sovereignty, and personality in the field of culture. Is our educational institutions in Indonesia can produce the quality of a good leader? Questions of this is relevant to answer. Take place that the education in Indonesia, in practice, in the view of critical theory, cannot be said to contain elements of critical pedagogy. The argument is that education in Indonesia has not given the freedom of the subject to the students, meaning students subject is seen as a reality, man as a subject has the will capable of changing social conditions, and made history, but no attempt to resurrect their critical reasoning power. Secondly, it should be the subject of learners or students do not become the object of study, but should be treated as an independent subject. This means that free students or students from pseudo oppression. The trick is to be explained by growing awareness of the rational. Third, the dialectic of negation and ways of thinking to raise awareness of the critical need to be contextual and textually in the national education curriculum.

If, critical educational model is implemented in the curricula of Indonesia, there will be changes to all reality that is considered oppressive or alienate human beings with the aim of emancipatory society free from oppression. Moreover, if the concept of critical educational approaches Marxist-Socialist is applied, it will change society's perspective, where man is seen as a subject capable of changing social conditions and make history, bringing orientation that in education, people will get the most attention. Humans who become learners will gain experience that cannot be separated from the world in which they are born, grow, and mature. Also all the elements in education, such as curriculum, learning resources, will be optimally utilized as a means to become a man of quality, who can change the social conditions and create their own history (Horkheimar et.al, 2002; Sindhunata, 1990, Habermas, 1987). By applying the dialectic of critical thinking in the education system will be negated orientation of the subject the student to be able to develop a critical awareness in real life in the community, which by Habermas (1987) calls the enlightenment. This Enlightenment, understood as resistance and counter-force against oppression. Called counter-force, because of the insight gained from a desk in the school individually will be transformed into motifs, thus considered to have destroyed the charm of collective strength.

Critical education would be very advantageous when applied in the education system, because such models have a strong commitment to the empowerment and liberation which aspires to social and structural change towards a just society and a prosperous and democratic. If this is true, then the subject of education is no longer putting children as objects of training, taming, as a process of dehumanization. Never again there was an affair between economics, politics and science to sell the values of humanity, as it takes place within the capitalist model of education that takes place in third world countries, such as Indonesia today. Where the importance we go back to the philosophy of critical education Indonesia the first built by Ki Hadjar Devantoro with the concept of "Pancadarma Taman Siswa" which has a principle that education must involve independence, the nature of nature, culture, nationality, and humanity (Sumantri et al, 1995). How does this concept should be implemented? Stages are given to students, must start from:

1. Learning from the reality of the experience; means learned not doctrine (text book), theories, opinions, conclusions, advice, and counsel. But learned is the real situation, the real conditions of society or a real experience.
2. Do not parse; meaning that teachers and students alike to learn at the same time.
3. Characteristically dialogical; meaning that the concept of teachers and students together, so that the learning process that lasts no longer a learning process that is one way, but the communication process in various forms of activities (discussions, role play, case studies, interviews, and a visit to various places, seeing the reality world around).
4. Reconstruction of conducting recovery of fact, the elements, and the incidence of the reality of the experience gained. That is the process of repetition, because it is very contextual in real life.
(5) Disclose; that is to say after experiencing, then the next important to express feelings and real experience that, how do you respond, the impression on the experience.

(6) Summing up; means to define the meaning or the essence of the reality of life as a lesson and a more complete understanding, in the form of principles, generalizations from critical analysis performed.

(7) Actions; at this late stage of the learning cycle is to decide and implement new measures based on the results the better the experience.

Education in such practices shows that education is never free standing, but dialectically related to the environment and social system in which education was held. Education as a process of liberation should make the subject students as actors in education. They should not be alienated from his own world. They must not give priority to learn about other worlds, while his own world is ruled. To encourage the learning process as it requires the formulation of the vision and mission for education in accordance with the development of social formations, determine the attitude of partiality in the process of social injustice; then translate them in the learning process methodology. Therefore, they were given a reflection of critical thinking as the primary goal of education, the generation is the generation that formed the moral and character.

IV. Conclusions

Based education in the Marxist-Socialist, purpose and ideology of education is to build the character of the nation, the man who enlightened. Enlightened human spirit and his mental condition is very necessary to build a society characterized by a progressive, egalitarian, democratic, equitable, and sided with the oppressed.

Education is the basis of Marxist-Socialist, the paradigm is not as land or a search for material gain, but to build human spirit and humanistic character. The instrument of education is to free people from the shackles of dehumanization and put a man in the true essence of human dignity.

Education Marxist-Socialist, envisions the creation of critical education and independence of students, the education that can make them think critically, a radical revolutionary, which can print human and leaders of powerful nations fight for the oppressed, poor and underdeveloped, as a result of the domination of social dominant.

V. Recommendations

Ideas, concepts, and ideas Marxist-Socialist education, should be able to be the inspiration for education policy makers in Indonesia, in designing, initiated the system, and the regulation of education is the driving force of development of the nation.

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**Biodata**

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INDOOR AND OUTDOOR CLASS METHOD TO MAKE UKEL BUCKLING TRADITIONAL BUN

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ABSTRACT

Structuring ukel buckling bun area is an aspect of Indonesian culture and in the ancient times. This type of bun was used by the royal family especially the Yogyakarta's royal family. The importance of this study was to determine whether the indoor and outdoor methods could increase the student competence in making the arrangement of bun buckling bun area. The aim was to describe how the application of indoor and outdoor methods could increase student the competence in making the arrangement of bun ukel buckling area of grade XI hair-styling class at Vocational High School 1 of Sidoarjo. This type of research was the Classroom Action Research (CAR), the data collection method using the method of observation and documentation. The subjects were students of grade XI hair-styling class at SMK Negeri 1 Sidoarjo totaling 27 students. Based on the results of practice before the action research, the results of the practice of students who reached the minimum grade point average (≥78) was only 5% with an average value of 74.4. After the first cycle it increased to 67% with average value of 76.4 and at the second cycle it increased to 100% with an average value of 80.7. Based on these results we can conclude that learning by applying the method of indoor and outdoor could improve the student competence in conducting arrangement of ukel buckling bun area for grade XI hairstyling class of Vocational High School of Sidoarjo in the academic year 2015/2016. Some suggestions for teachers are that to be able to select appropriate instructional media for ukel buckling bun subject and convey the material, it should be completed so that the students can understand them thoroughly and for students to be more looking for more detailed information from internet, books and magazines.

Keywords: student competence, structuring bun, ukel buckling.

INTRODUCTION

Beauty is not all about how ideal your body is, but beauty is about the right and beautiful combination of some compounds, those compound is beauty and behavior. Every woman basically has the modal of being physically beautiful, more important is how woman can pay attention to their behavior and soul to become beautiful inside and out. Now, we can see that the needs of being more beautiful becomes every woman’s priority.

In traditional bun learning process, the understanding of essential concept is very important. Understanding the essential concepts will help student to remember the concepts for a long term memory and it can be used at higher level thinking, as decision making, solving problem and so on. Understanding the right essential concepts will help students to get the school’s minimum grade point average. For ukel buckling traditional bun class the minimum GPA increased to 78 point, this also means that the possibility for student that will not pass the minimum score is higher than the previous minimum GPA.

That conditional probably will affect the quality of ukel buckling traditional bun class in grade XI hairstyling class of Economic High School of Sidoarjo. This ukel buckling traditional bun becomes essential basic hairstyling class for these 3 years, every year this class is one of the national examination material. From pre-test result, we can see that 13 of 27 student’s score have not passed the minimum score.

One of this problem solution that can be done by teachers is using outdoor learning method and indoor learning method. This research problem is 1) can outdoor and indoor learning method increase the competency of Economic High School 1 Sidoarjo’s student?
Hair-styling

In hairstyling by looking the form of the traditional bun, we can see where that kind of bun come from.

1) Bun arrangement

Arrangement can be divided by 2 definition, those is large definition and closed definition.

In large definition, arrangement in hairstyling means all the steps, process and strategy to decorate one’s performance by style one’s hair as shown by Rostamilis (2009). Arrangements includes process of hair washing, hair cutting, curling hair, coloring hair, straighten hair and its hair styling.

In closed definition, arrangement in hairstyling means the last process of hair styling. Basically this definition includes making hair bun, brushing hair and using accessories to decorate one’s hair. So in this research, researcher use the closed definition.

2) Ukel buckling traditional bun

Traditional bun is one of Indonesia culture heritage, every traditional bun has its own characteristic and symbolize every different culture. Ukel buckling traditional bun is from Yogyakarta, in the ancient times only the royal family member can use this kind of bun, based on their age and their needs. So, ukel buckling traditional bun arrangement is the last process of hair styling that had been used by Yogyakarta royal family.

3) Outdoor and indoor study

a. Indoor study

Indoor study is the teaching learning process that occurs inside that class, using facilities inside the class. Thus, this method is the process of teaching and learning that occurs inside the class to achieve learning purpose. Indoor study can use individual learning or group learning method. In class, there are some facility like white board, board marker, and some learning media such as projector and LCD. Teacher can arrange the position of tables and chairs so the class is big enough for teacher and student o move around.

b. Outdoor study

Outdoor study is the teaching learning process that occurs outside class for example let student come to a beauty class, hairstyling seminar, observe how hairstyling at salon. Thus, this method is the process of teaching and learning that occurs outside the class to help student increase their ability and achieve learning purpose.

Outdoor study approach states that this study should be enjoyable and fun so the student will study happily. This kind of study is to make the student and teacher enjoy the learning teaching process so there is no more pressure and feel boring at class as shown (2012). Outdoor study can use some learning methods such as give student assignment, discussion and learning by playing games or learning by watching, this kind of study will make the students enjoy the class more, use the suitable learning media.

RESEARCH METHOD

This research is class action research with two cycle. Every cycle has several steps, those are:

1. Planning

This planning step includes make teaching planning, make teaching scenario, make assessment instrument, make teaching media and also make test for the students.

2. Execution

This research execution occurs in three steps of teaching process: 1) initial activity, 2) main activity, 3) finale activity. Intervention and activity done for this class are: call their name for see who did not attend the class and gives students apperception.

Then for the main activity, teacher give students explanation with indoor study and outdoor study by demonstrating how to make ukel buckling bun and let the student do it by themselves. For the first class, students are divided into a big groups, every group has 10 person in it, for the second class students are divided into a small groups, every group has 4 person in it.

3. Evaluation

In this steps, teacher will observe and evaluate how the students study. This observation aims are to understand, to record and to collect the datas that indicate students motivations in learning process. This observation occurs in indoor study and outdoor study. Teacher fill the observation
instrument based on students and teacher activity. Teacher observe students psychomotor aspect based on how they make ukel buckling bun.

4. Reflection
Reflection is synthetic analysis activity, interpretation and explanation about all of the data and information collected from class action research. This assessment based on how to make a ukel buckling tradition hair bun arrangement. This reflection also based on the score that students have got for this practice class. After cultivating the score, the score is used for source of research data for analyzing. This research subject is Economic High School 1 of Sidoarjo, total is 27 students, this research data use observation to observe the class activity and recording as assignment result.

DATA ANALYSIS TECHNIQUE
Data analysis is the method used to restrict research invention so it will be a neat data, and to establish data (Marzuki, 2002)
The equation for this research is:
Average equation (Hatta:163)
\[ Y = \frac{\Sigma Y_i}{n} \]
Note:
Y = students
\[ \Sigma Y_i = \text{total of students score} \]
n = students number

RESEARCH RESULT
Before the students just attend the demonstration class, the average score is still low and does not pass the minimum grade, just 3 of them or 5% of 27 students passed, the average score is 74.4.

\[ Y = \frac{\Sigma Y_i}{n} = \frac{2011}{27} = 74.4 \]

Dari hasil analisis statistik siklus I menggunakan uji paired samples T-test. Rangkuman hasil statistik sebagai berikut.

From cyclus I data analysis using T-test paired samples, statistic result summary is written as below:
Cyclus I the researcher helped the teacher taught the student how to make ukel buckling bun. The steps are: 1) teacher explain how to make ukel buckling traditional bun step by step, 2) Teacher asked the students to attend indoor and outdoor study, 3) Teacher asked the student to pay attention to ukel buckling bun demonstration, 4) Teacher asked students to make their own ukel buckling bun in big groups. From make ukel buckling bun in big groups, it shows that making ukel buckling traditional bun in big groups correlation shows that indoor outdoor practice at cycle I does is not yet effective, its correlation point is -0.084. Because in cycle I students are not focus and concentrate, but they still understand how to make ukel buckling bun. With lacking of students achievement in this treatment, there are some factors that affect learning teaching process, those are: teacher, students, infrastructure, media and environment.

This research result shows that student’s average grade has not passed minimum grade, there are 13 students or 67% students have got 76.4 average score. Students who have passed the minimum grade will have enrichment class, this class gives them more knowledge about next traditional bun class. The equation is written below:

\[ Y = \frac{\Sigma Y_i}{n} = \frac{2065}{27} = 76.4 \]

Statistic analysis result use T-test paired samples, the statistic result is written below.
On cycle I, there are some weakness so the researcher tried to find solution for cycle II, 1) in every meeting, teacher should direct students to have a good teamwork, 2) teacher should stimulate student to be actively ask and give opinion; 3) teacher should instruct student clearly and more detailed, so students can understand well, 4) teacher should use time preciousity, 5)
teacher instruct them to have a fair competition. On cycle II, students are divided into small
groups, every group has 4 person, the purpose is students will pay attention more and more
concentrate to make ukel buckling traditional bun. The steps are: 1) teacher explain how to
make ukel buckling traditional bun, 2) guru ask students to attend indoor and outdoor study, 3)
teacher ask student to pay attention at how to make ukel buckling traditional bun, 5) teacher ask
students to make their own ukel buckling traditional bun in small groups. Based on researcher
observation, on cycle II shows that the result is better than before with correlation point 0.831, it
does influence student ability to make ukel buckling traditional bun, there are 27 students or
100% students have passed minimum grade. With equation as written below:
\[ Y = \frac{\sum Y_i}{n} = \frac{2181}{27} = 80,7 \]

After collecting students score, researcher count again the result use percentage to find
how many percent students passed the minimum grade.

The percentage equation used is written below:
\[ P = \frac{Y}{N} \times 100\% = \frac{2181}{27} \times 100\% = 80,7 \%
\]

So, the result of student ability for making ukel buckling traditional bun is 80,7%, this
shows a significant result by learning and practicing making ukel buckling traditional bun in
small groups. In small groups, students is more focus attending class.

CONCLUSION

Based on the analysis, ukel buckling traditional bun class with a big group consists of 10
students on cycle I does not have a significant result, as its correlation point is 0.084 and
average point 76,4. But in ukel buckling traditional bun class with a small group consist of 4
students on cycle II has a significant result, its correlation point is 0.831 and average score 80,7.
The factor that can influence learning result are teachers, students, instructure and environment.

ACKNOWLEDGE

Researcher suggest teacher should prepare a suitable media learning for a small and big group
class so the students will understand clearly, teacher should give a detailed and better
explanation and motivate the students that they can make ukel buckling traditional bun well by
themselves.

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SELF-INSTRUCTION: COUNSELING TECHNIQUE TO INCREASE THE ADOLESCENT SELF-ESTEEM

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ABSTRACT

Self-esteem is one of the personality elements which are very important in influencing the quality of the individual’s social and psychology. Self-esteem is defined as an individual evaluation of his or herself, which is partly the evaluation, comes from individual interaction with the environment as well as on the amount of the award, acceptance and attention of another person receives. There are various factors behind the formation of self-esteem, such as parenting, peer pressure, sex, mindset, past experience, social status, achievement, and the high value of self-esteem which will influence success and well-being such as social relationship, work, and health. On the contrary, a low self-esteem will bring out various issues intrapersonal beliefs. The development of self-esteem occurs in fluctuated process in line with the rate of development. The development of adolescent self-esteem is not growing rapidly as childhood and adult. An increased self-esteem in adolescents can basically be done by a variety of techniques. One of the techniques which can be used is the self-instruction technique. Self-instruction is a technique which can be used to help counselee in giving evaluation (not adaptive) toward his or her self replaced with the more adaptive statement.

Keyword: Self-Instruction, Self-Esteem, Adolescence

INTRODUCTION

Adolescence is a transition period from childhood to adulthood. The period is marked by a change in the biological aspect, cognitive and socio-emotional (Yusuf and Sugandi, 2011). As a result of the growth of the physical and social environment, adolescents are often experiencing self-tremendous pressure, it is because the widespread social and mobility area. The more expansion of mobility in adolescence, the more attention specially this period needs. Adolescence is known by the time of storm and stress. Many teens who have not been able to go beyond the pressures well. If in adolescence people have confidence and a positive view of their capabilities, it is possible for them to be able to enter adulthood well. A good adulthood is generally characterized by an independent attitude, happiness and success in social adjustment. On the contrary, if the individual judging him negatively as it felt itself unable, anxious, pessimistic about the future it could be possible to exceed people fail to undergo the stresses of life demands.

Cavanagh and Levitov (2002) classify three psychological dimensions that became the driving force in carrying out the demands of life, the need fulfillment, competencies intrapersonal, and interpersonal competencies. If from these three things, there are aspects that have not been met then it is possible there will be problems in the future life. Problems that arise in the individual is the externalization of self. In line with the development of the individual, sometimes teenagers behave quite right that eventually emerged attitude is not like themselves. Do not like or accept yourself is one of the indicators of low self-esteem

Adolescence is a period that often experience low self-esteem problems. In line with this, Erol, Ruth Yasemin., And Ulrich Orth (2011) state self-esteem in adolescence have increased more slowly than the previous developmental age, so it is possible to experience low self-esteem problems. Low self-esteem causes people to feel inferior, incompetent, unloved, neglected, unimportant and uninteresting. Low self-esteem can be also because of the failure of individuals to communicate the depth of their intrapersonal.

Due to the importance of self-esteem in influencing the quality of the life in the future, then ideally the individual has a high self-esteem. Orth and Robins (2014) state that high self-esteem are able to support people in achieving success and prosperity in life domains such as
social relationships, employment, and health. In addition, Potter (2002) states that individuals with high self-esteem tend to have stable emotions, conscientious, fun, and open to share their experiences with others. Increased self-esteem in adolescents can occur if they are willing and able to overcome their problems, and not avoid it (Lazarus in Santrock, 2007). Facing the problem realistically, honest and not defensive can produce a positive self-evaluation so that the impact on the increasing self-esteem.

To optimize the development of self-esteem in students require the assistance of the implementing guidance and counseling in schools. Signs of self-development to high school (2008), stating Guidance and Counseling is an integral part of the overall education program in schools. The rationale and urgency of the implementation of guidance and counseling in schools is not solely lie in the presence or absence of a formal, but more important is regarding the fulfillment of the real needs of students will help psikopedagogi is able to develop his or her potential and achieve the developmental tasks optimally concerning aspects of the physical, emotional, intellectual, social and moral-spiritual.

Attempts to do the teacher guidance and counseling to optimize the development of students’ self-esteem is through a variety of approaches. One of them through cognitive behavior therapy approach. This approach aims to amend errors or deviations in the mind (Davidson, 1990). There are a variety of techniques in cognitive behavior approach, among others, self-instruction, problem solving and cognitive restructuring.

Technique self-instruction is an effort to teach people about how your own capability to handle the difficult situation that happened effectively (Sharf, 2004). Technique of self-instruction assumed effective way to improve students’ self-esteem because it has several advantages, these advantages are Antala can replace the negative views of individuals believed to be positive, as well as directing people to be able to change his condition to obtain more effective than the environmental consequences. This technique aims to reconstruct patterns of cognition, assumptions and beliefs and judgments destructive and self-blame. Based on the above explanation the question arises whether the technique of self-instruction is effective to improve students’ self-esteem?

DISCUSSION

Self-esteem is an evaluation of the individual against himself, to be maintained as well as the most votes against him comes from individual interaction with the environment and the amount of the award, acceptance and attention of others who receive it (Coopersmith, 1967). Self-esteem is one of the elements of personality which is very important in influencing the social and psychological qualities of the individual. One reason to understand the importance of self-esteem is to help individuals learn things related to themselves as a unique human being.

There are still many limitations in understanding the overall meaning. Self-esteem are understood as introspection and observation of others against themselves. Because admittedly difficult to be disclosed, then there is a simple way that can be done to understand the self-esteem that is by asking questions to yourself and others as an evaluator (Mruk, 2006). Questions can be submitted covering how individuals interpret the fate suffered in his life and behavior ?, how individuals can understand the purpose of life in both the short and long term ?, how the individual's relationship with the social environment ?, and how the pace of life she lived?

A famous psychologist, Branden (1992) in his book entitled The Power Of Self-Esteem argued that self-esteem is one of the most important keys in the motivation to achieve success. Similar statements expressed Waiitley (1997) that the self-esteem of the individual will contribute to the achievement of objectives in academic success, career and personal happiness.

Every individual has the dimensions of self-esteem are different from each other. To assess the dimensions of self-esteem depends on the extent and rate individual considers himself worthy. Each level of self-esteem has certain characteristics externalized in attitude and character. Coopersmith (1967) classify the characteristics of high self-esteem and low self-esteem as follows.
### Table 1
Characteristics of High Self-Esteem and Self-Esteem Low
(Coopersmith, 1967)

<table>
<thead>
<tr>
<th>No.</th>
<th><strong>Self-Esteem Tinggi</strong></th>
<th><strong>Self-Esteem Rendah</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have the ability to control or influence others</td>
<td>Easily influenced by others</td>
</tr>
<tr>
<td>2</td>
<td>Abiding by norms prevailing in society</td>
<td>Feeling isolated and not accepted others</td>
</tr>
<tr>
<td>3</td>
<td>Successful in achieving the desired</td>
<td>Felt unable to face the challenges</td>
</tr>
<tr>
<td>4</td>
<td>Confidence</td>
<td>Not confident</td>
</tr>
<tr>
<td>5</td>
<td>Are you sure you can solve the problems faced</td>
<td>Not able to solve their own problems</td>
</tr>
<tr>
<td>6</td>
<td>Being able to assess the ability of the</td>
<td>Not able to assess her abilities</td>
</tr>
<tr>
<td>7</td>
<td>Optimistic able to make adjustments</td>
<td>Pessimists in adjustment</td>
</tr>
<tr>
<td>8</td>
<td>Participate well in their environment</td>
<td>Not being able to participate properly in the environment</td>
</tr>
<tr>
<td>9</td>
<td>Gained recognition and respect from others</td>
<td>Feel alienated because of her conviction unloved</td>
</tr>
<tr>
<td>10</td>
<td>Able to receive positive feedback and appreciation of the environment</td>
<td>Sensitive to criticism</td>
</tr>
<tr>
<td>11</td>
<td>Confidence in the ability</td>
<td>Easily controlled by someone else</td>
</tr>
<tr>
<td>12</td>
<td>Establish positive relationships with others</td>
<td>Establish a negative relationship with others</td>
</tr>
<tr>
<td>13</td>
<td>Easy to make friends</td>
<td>isolate yourself</td>
</tr>
<tr>
<td>14</td>
<td>Has a lot of expectations to be realized</td>
<td>Fear of failure in achieving the expectations</td>
</tr>
<tr>
<td>15</td>
<td>Not easily discouraged</td>
<td>Easy to despair.</td>
</tr>
</tbody>
</table>

Related to the above, ideally the individual has a high self-esteem to be able to succeed in life. Given the self-esteem has important consequences in the real world, the development of self-esteem needs to get special attention because of the development, not all individuals have a high self-esteem.

Low self-esteem will bring up various issues intrapersonal. According to Surya (2009) the following are the problems that arise when individuals in the category of self-esteem is low (1) perceiving themselves with no respect and love, (2) neglect ourselves though not hate yourself, but often expect others to give award against him, (3) shows the behavior in an attempt to fill dignity lost to shape the behavior of a synthetic, (4) beridentifikasi excess on certain roles, (5) did not let other people familiar psychologically with him, (6) the behavior that is constantly changing in choosing friends and business partners, (7) not being able to forgive ourselves, (8) finds himself in negative ways.

If allowed to drag on low self-esteem issues will have an impact on individual psychological, such as depression and anxiety. This is consistent with the results of research Sawislo and Ulrich (2013) which prove that there is a link between self-esteem to depression and anxiety. Another issue that will arise because of low self-esteem is the social rejection. Leary, Mark R. (2010) in his research stating that the self-esteem develops as a monitor in social acceptance and self-esteem that can prevent the occurrence of social rejection.

The development of self-esteem in adolescence influenced by interpersonal problems. That is because the optimal capability in understanding adolescent self-growing flower. Erikson (in Santrock, 2007) suggests that individuals in adolescence confronted with many questions about themselves, who they are, how they are the future and what the purpose of their lives. All these questions lead to the formation of the self perception. Perception involves aspects of cognition that forms a self-assessment against. When an individual is able to perceive themselves in a positive way, it will be created a sense of comfortable and happy in her life that usually manifests itself as self-confidence, fun, easy to get along and are emotionally stable. Conversely, if the individual mempersepkan itself negatively characterized by feelings of
worthlessness, self-esteem, feel isolated and difficult to get along with the environment, it forms a low self-esteem.

The development of self-esteem in adolescents is influenced by external and internal factors. External factors include parenting, peer pressure, the achievements of past experience, social status, while the internal factors include mindset, gender, as well as the value of the beliefs held. Irawati and Hajat (2012) in his research proves that there is a significant positive ties between self-esteem and academic achievement of students.

According to Coopersmith (1967) there are four aspects that can be used as benchmarks to assess and appreciate him the power aspect, Significance, virtue and competence. Aspects of force leads to an individual's ability to be able to regulate and control the behavior and its role in influencing others. In addition, the power is characterized by the recognition and respect that individual received from others. Significance shown with the care, attention and affection received from others. Expression of appreciation, interest and acceptance of others as a form of acceptance and popularity of the social environment. Aspects of virtue demonstrate their adherence to the standards of moral, ethical and religious principles that must be executed. Virtue is marked by obedience to avoid behavior that should be avoided and the running behavior allowed by moral, ethical and religious prinsi. Aspects of competence is the ability of individuals to achieve a good performance, in accordance with the age and stage of development.

Cognitive behavior therapy approach developed by Donald Meinchenbaum has several techniques, one of which is self-instruction. Technique of self-instruction is an effort to teach people about how your own capability to handle the difficult situation that happened effectively (Sharf, 2004).

In the implementation, Meichenbaum (in Corey, 2009) classifies three stages in implementing the technique of self-instruction, namely (1) the observation of self, (2) initiating an internal dialogue and (3) learn new skills. Observations made at the beginning of the intervention themselves by asking people to listen to the internal dialogue within themselves and recognize the characteristics of negative statements he had in mind. Start an internal dialogue is performed to identify maladaptive behavior, people began to look for alternative menggembangkan opportunity adaptive behavior by changing the internal dialogue within himself. With internal dialogue is expected to individuals capable of producing new behavior that impact on the structure of cognition. Learning new skills requires individuals to begin to learn the techniques to overcome problems that can be applied in everyday life. At the same time, individuals are expected to remain focused on the task of making a new statement and observing the difference in behavior.

By teaching self-instruction techniques well as preventive and curative efforts were made through a structured training or information services, individuals are expected to be able to apply themselves in order to improve self-esteem. Through the technique of self-instruction of individuals trained in order to change the negative view that is believed to be a positive outlook. In addition individuals are required to be more independent through that difficult period faced. Individuals who see themselves negatively as not confident, feeling himself unworthy and isolate themselves are a manifestation of the lack of proper mindset. Negative assumptions against self into these beliefs must be changed by way of practice to be able to think more positively in order to affect the increase.

CONCLUSION

Self-esteem is an evaluation of the individual against himself, to be maintained as well as the most votes against him comes from individual interaction with the environment and the amount of the award, acceptance and attention of others who receive it (Coopersmith, 1967). The development of self-esteem occurs fluctuated throughout the life span along with the development. Masa who often experience problems of low self-esteem is in adolescence.

In adolescence the individual faced a lot of questions about themselves, who they are, how they are the future and what the purpose of their lives. All these questions lead to the formation of the self perception. Perception involves aspects of cognition that forms a self-assessment against. If the individual is not able to assess themselves in a positive way, it will
cause low self-esteem. Low self-esteem causes people to feel inferior, incompetent, unloved, neglected, unimportant and uninteresting.

Technique of self-instruction allows the individual to have the skills to restructure the pattern of negative cognitions, assumptions, beliefs and judgments destructive and self-blame. In particular technique of self-instruction not only focus on the mindset of the individual alone but behaviors that may appear after applying the technique of self-instruction. Thus, the technique of self-instruction possible to help people in improving self-esteem.

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THE PERCEPTION OF GEOGRAPHY EDUCATION STUDENTS WHO APPLY COOPERATIVE LEARNING JIGSAW MODEL IN TEACHING PROGRAM EXERCISE

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ABSTRACT
This study aims to determine the two main things, namely: 1) students' perceptions of cooperative learning model jigsaw that they used in teaching and teacher training, 2) changes in what students obtained after applying the jigsaw cooperative learning in their training program. The method used in this study was a qualitative approach. The data collection used interviews and observation. The subjects were students majoring in Geography Education of class of 2014 who were taking Teaching and Learning Strategies course. The subjects were divided into three groups of students who have the cognitive sciences categories: 1) high, 2) medium, and 3) low. The results showed that there were differences in perception among the three research subjects, particularly in terms of knowledge, teamwork and problem solving. In addition, there is a psychological change in the subjects that had low cognitive category which increased motivation to joyful learning.

Keywords: perception, cooperative learning, jigsaw, group work, psychological changes

INTRODUCTION
Education is one of the factors that can alter the civilization of a nation. Advancement of education into one measure of a country's HDI position itself on the world stage. Indonesia based on data from UNDP 2015 still is ranked 112 of 184 countries in the world. Improvements in education would be an important factor so that the quality of education can increase rapidly. Many variables influence in education that could lead to the quality of education in Indonesia is still not in line with expectations. One of them is the weak implementation-oriented learning model student independence in constructing knowledge. Learning is done in a conventional manner and a teacher-centered. As a result, students do not develop cognitively, not creative and do not have a high innovation capabilities. Students are not trained to think differently so that learning is still focused on the transfer of knowledge, not the sharing of knowledge.

The importance of applying the learning model that attracts students to learn is a challenge for teachers in Indonesia, including the students who are taking college education. Students are trained and prepared to become a teacher, so it is necessary teaching skills by implementing models of teaching (models of teaching) oriented intelligence (intelligence-oriented education), and gives breadth to them to educate themselves (Joyce et al , 2009). Basically the education building ideas and emotions continuously. Changes in human consciousness are also unabated give a distinctive character to the educational process. Good teaching is teaching that embraces learning experience without boundaries, and based on the results of research that its application will be operational. From the research results can be studied student responses, and can be used teaching strategies are effective, seamless and fun accompanied by lots of training and practice. The function of the teacher is to help students acquire information, ideas, skills, values, ways of thinking, and the purpose of expressing themselves, so that in the long term future of students were able to improve their capabilities to be able to learn more easily and effectively, both because of the knowledge and skills they gained as well as their mastery of the learning process better. A successful teacher is not just a charismatic and persuasive presenter. Furthermore, teachers who succeed are those who engage...
students in tasks laden cognitive and social, and teach them how to do these tasks productively. For example, although we need to learn to speak clearly and proficiently, students should still learn from the lecture; successful educator will continue to teach students how to absorb and master the information derived from the explanation. While the learners are able to effectively describe the information, ideas and wisdom of their teachers and use learning resources effectively. Thus, a major role in teaching is to print the learners that are reliable (powerful learners).

One model of learning that is oriented towards the development of students' thinking skills is cooperative learning. One of it is the type cooperative learning jigsaw in which students are trained to solve problems in groups and share the knowledge they have acquired to his friends. In jigsaw learning is possible students practice communication and delivering arguments in the group. In the method of Cooperative, Learning students must learn cooperative skills are taught. The cooperative skills to work to smooth working relationship and division of tasks between members, so that the group can work together productively. Learning Cooperative learning models used by researchers is Jigsaw because in this technique occur mental and physical involvement of students in full, in which students in explaining these materials must be easy to understand and be understood by other students. With this learning will be seen student independence in learning. Students really work together and can enhance students' thinking. In addition, it can also minimize opportunities for students to inactive because the inside of each student realized that he had a responsibility to explain to a group of their friends.

Cooperative learning model jigsaw is a cooperative learning model in which students learn in small groups of 4-6 people are heterogeneous and cooperate positive interdependence and is responsible for the completeness of the material part of the lessons to be learned and deliver the material to the other group members (Arends, 1997). Slavin (1995) suggested five steps or stages in the implementation of cooperative learning of Jigsaw as follows: a) Phase 1: Reading, where students are grouped into groups; basic / origin. Each member of the group given the sub-subject of different topics for them to learn. b) Phase 2: Discussion of the expert group. Students receive the same topics discussed in expert groups. c) Phase 3: Report of the group. Students return to the basic groups / origin and will explain what they get in expert groups. d) Stage 4: Tests. Students are given a test that covers all topics method. e) Stage 5: Choice group. The role of teachers in cooperative learning of Jigsaw is directing the discussion, both at the expert group and later on a group basis / origin. This is important because the students learn the material rather like a lecture, a transfer of knowledge from teacher to student. The Jigsaw type of cooperative learning was students who actively build their own knowledge. Students certainly require directives teacher to learn the material, especially material that is new to the students

Cooperative Learning is proven to promote cooperation among students resulting in improved learning quality and skills of academic achievement, interpersonal skills, and self-esteem. These student performances are described by Smith (2007) in four types of learning group performance in the classroom: a) Pseudo learning group: group members are passive and reject working together and compete with each other. The group performance level is lower than if members were to work individually. b) Traditional classroom learning group: members accept that they have to work together, but contribute very little joint work because tasks given can be divided and done individually. There are free-riders in the group that cause responsible members feel burdened, and resulting in a very low performance. The group performance level is about the same if members were to work individually. c) Cooperative learning group: members are relieved they can work together in a group, and understand that success depends on the effort of each member. Group performance level is higher than individual members. d) High-performing cooperative group: members are committed to helping each other and the group succeeds. Synergy is achieved resulting in a group performance level that is much higher than those of the individual members.

Students' perception of the use of cooperative learning model is also very important to know because it can give you an idea associated with the level of understanding of the concept
being studied. The nature of the human perceptions in a learning process changes due to the influences and values of the environment. These learning conceptions are conceptualized into 6 hierarchical levels (Marton et al., 1993; Tynjala, 1997): (a) increasing one’s knowledge; (b) memorizing and reproducing of knowledge; (c) applying; (d) understanding; (e) seeing something in a different way; and (f) changing as a person in nature. In the first three categories, the learning is described as a reproduction of information, while the next three categories of learning as knowledge transforming.

From the above background, it can be concluded that learning using cooperative learning model Jigsaw addition to improving students’ motivation to learn in groups, can also increase the level of their knowledge and skills for better communication. By the time the students to explain the material to the group, here the students are trained to be able to learn to strengthen communication skills and how to deliver messages verbally. If this practice is done continuously, it can strengthen students’ skills, and enhance self-confidence and motivation to study in a better direction. To be able to implement cooperative learning model Jigsaw in learning, than ever need to know students’ perception of the learning model. Perception is meant here is a perception of jigsaw cooperative learning and assessment of the model when applied in teaching. Perception is formed through a series of sensory processes, and also felt directly by the students, so they can be objectively related to the assessment of the learning model. This study aims to determine the two main things, namely: 1) students’ perceptions of cooperative learning model jigsaw that used them in teaching and teacher training, and 2) changes in what students obtained after applying the jigsaw cooperative learning in their training program.

**METHODOLOGY**

This type of research is quantitative descriptive. Subjects were students in the Department of Geography Education, Faculty of Social Sciences and Law, State University of Surabaya force in 2014 as distinguished into three categories of cognitive knowledge: 1) high, 2) medium, and 3) low numbered 50 people. The subject of research done by purposive sampling with some consideration, namely: 1) Students are preparing to follow the program the learning experience or program of teaching a real school, and 2) the student has received a course of education, so they already have knowledge about learning models innovative on campus. The collection of data is done using interviews and observation, then the data were analyzed by using percentage.

**RESULTS AND DISCUSSION**

Perception of students to use cooperative learning model jigsaw.

The results of this study indicate that cognitive ability is seen by the student test results obtained from the data subject SBM as follows: there are 32 students of the higher cognitive category, 11 students categorized as moderate and the remaining 7 students of the low category. The high category with a value range A which is between 85 -100, the medium category with a value range of between 70 - 84 B and lower categories with a range of grades C and D are between grades 50 - 69. Students used as research subjects were all college students who've cult of teaching with cooperative learning model Jigsaw. Of the total study, subjects were obtained research findings on students’ perceptions of Education Department of Geography Faculty of Social Sciences and Law, the State University of Surabaya against Jigsaw cooperative learning model as shown in the following table.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Perception of Students with Cognitive Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>The purpose of cooperative</td>
<td>The purpose</td>
</tr>
<tr>
<td>learning jigsaw</td>
<td>of cooperative</td>
</tr>
<tr>
<td></td>
<td>learning</td>
</tr>
<tr>
<td></td>
<td>jigsaw can</td>
</tr>
<tr>
<td></td>
<td>improve</td>
</tr>
</tbody>
</table>

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From the findings of the above study, obtain information on students' perceptions of cooperative learning model jigsaw review of aspects of learning objectives, learning the syntax and implementation of learning outcomes. There are differences in perception between students who cognitive category of high, medium and low in understanding the purpose and syntax of the type cooperative learning jigsaw. Nevertheless, they have the same perception of the results of the implementation of cooperative learning jigsaw. According to them the use of cooperative learning model jigsaw highly effective, interesting, fun and can improve understanding and work together with other friends.

The cooperative learning model is one model of learning that supports contextual learning. Cooperative learning system can be defined as a system of work / study group is structured. Included in this structure are the five basic elements (Johnson & Johnson, 1993), which is positive interdependence, individual responsibility, personal interaction, skill work together, and the group process.

b. Changes students after using cooperative learning model jigsaw.

The results of this study indicate that a change in the character of students after applying cooperative learning model jigsaw in terms of aspects: a) motivation, b) problem-solving, c) work together in groups, and d) the communication within the team. Furthermore, the results of research related to it can be seen in the following table.

<table>
<thead>
<tr>
<th>Aspek</th>
<th>Cognitive Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Motivation</td>
<td>Have a very strong motivation demonstrated by the seriousness about the task, explaining to other members with the spirit</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Problem solved systematically, through clear stages,</td>
</tr>
</tbody>
</table>

Table 2. Changes in Learning
Students are responsible for them individually. The other students are not. Cooperation is very good, but still, there are students who dominate the working group.

**Teamwork**
- Very good cooperation, complement each other.
- Cooperation is very good, and no student who dominate the working group.

**Communication within the team**
- Less effective communication, students work individually and rarely asked, but the ability to explain the outcome of the discussion was very good.
- Communication runs continuously during the learning process, ask each other, and the ability to explain each student is good enough.
- Students ask each other during the learning process, but at the time explaining the material results of the discussion of the expert group to barriers which students can not explain smoothly.

From the presentation on the above results, it can be seen that the application of cooperative learning jigsaw able to change to be more motivated students and work together in the group. Indeed, there are some differences in changes based on cognitive ability, but the trend of change leads to a positive impact. Individual success depends on the cooperation within the group. This is consistent with that proposed by Slavin (1995) that the purpose of cooperative learning is creating a situation where individual success is determined or influenced by the group's success.

In a cooperative study although it covers a variety of social goals, improving student achievement or academic tasks more important. Some experts argue that this model excels in helping students understand difficult concepts. The developers of this model have shown that the model of cooperative reward structure resulted in improved student scores on academic learning and change in norms related to learning outcomes. In addition to changing the norms related to the results of learning, cooperative learning can bring benefits to both the student under the group or groups that work together on completing academic tasks.

Jigsaw is designed to increase students’ sense of responsibility towards their own learning and the learning of others. Students not only learn the material given, but they must also be ready to give and teach the material in the other group members. Thus, students are dependent on each other and must work together cooperatively to study the assigned material (Fatima, 2012).

Jigsaw was first developed and tested by Elliot Aronson and friends at the University of Texas and later adapted by Slavin and friends at John Hopkins University. Cooperative Learning Jigsaw type of cooperative learning is a type that consists of several members of one group responsible for control of parts of the study material and able to teach these parts to other members of the group (Arends, 1997).

Some things that could be an obstacle application of this model in the field that we have to find a way out, according to Roy Killen (1998), are: a) The main principle of learning patterns are peer teaching-learning by his own friends, will be an obstacle for the perceived difference in understanding a concepts that will be discussed along with other students. b) it is difficult to convince students to be able to discuss delivering materials to a friend if students do not have a sense of confidence. c) recording the students about values, personality, attention students must already own by educators and this usually takes a long time to identify the types of students in the group.
CONCLUSION

Jigsaw cooperative learning is one of the constructivist learning models that can enhance student motivation to learn. Perceptions of Students about the type cooperative learning jigsaw generally positive, only the students who have the cognitive categories in the medium and low level rather difficult to understand the syntax of this study. On the other hand, the implementation of cooperative learning model jigsaw changes the behavior of students to be active, creative and fun. There is a change in learning in a positive direction in terms of motivation and cooperation, whereas in the group of students categorized moderate and low cognitive difficulties in problem-solving ability and skills to communicate or explain the material to other group members.

REFERENCES


Biodata

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ABSTRACT

The purpose of this paper is to carry out the dynamic of the mathematical model of measles transmission with and without vaccination as a preventive measure. The studies carried out in this paper are, on one hand, the stability analysis of the model; on the other hand, they supplement the studies carried out by the authors, in which, using a computational program, the simulation to synchronize the analytic result and numerical solution. The comparison between the stability of measles transmission model with vaccination and without vaccination is showed in this paper. There were obtained two stationary points in each population. In term of population with vaccination, there are $T_1 = (1,0)$ and $T_2 = (\frac{\mu + \alpha}{\beta}, \frac{-\mu (-\beta + \mu + \alpha)}{\beta (\mu + \alpha)})$ as the stationary points, on the other hand, in population without vaccination, there are $T_3 = (1 - \varepsilon, 0)$ and $T_4 = (\frac{\mu + \alpha}{\beta}, \frac{-\mu (1-\varepsilon) \beta + \mu + \alpha}{\beta (\mu + \alpha)})$ as the stationary points. The model would be stable around $T_1$ hold by $\beta < \mu + \alpha$, and it would be stable around $T_2$ when $\beta > \mu + \alpha$. In the second population, the model would be stable around $T_3$ and $T_4$ when $\beta < \frac{\mu + \alpha}{1-\varepsilon}$ and $\beta > \frac{\mu + \alpha}{1-\varepsilon}$ respectively.

Keywords: stability, measles transmission, vaccination

BACKGROUND

Mathematics is often helpful in deriving biological understanding and insight. Conversely, the biological interpretation can be quite helpful in guessing identities or estimates and even suggesting quick and elegant proofs. Mathematic model became a tool, in which, can make the finding of solutions easier in real life. Problems can be solved by bringing it to the mathematics model with some certain assumptions. Next, we can find the solution of the model analytically or numerically.

One of real life problems is disease transmission, which is death affected or not. Example of undeathly diseases are measles, influenza, etc. This paper discuss about the transmission of measles disease using SIR model. There are two population considered in this paper: population with vaccination as a preventive measure and population without vaccination, with assumption that both of populations are constant and no migration from or into the population.

SIR Model

The transmission of measles disease in a population and in a period time can be modelled by SIR model. Suppose in a certain time $t$, the population consisting of:

- $S(t)$, susceptible: a subpopulation of those members consist of people who are susceptible to the disease.
- $I(t)$, infective: a subpopulation of those members consist of people who have contracted the disease.
- $R(t)$, recovered: people who have been cured of the disease.

With the proportion of $S + I + R = 1$.

In term of measles transmission without vaccination, the compartment we put together is as follows.
The mathematical model of the diagram above is
\[
\begin{align*}
\frac{dS}{dt} &= \mu - \mu S - \beta SI \\
\frac{dI}{dt} &= \beta SI - \mu I - \alpha I \\
\frac{dR}{dt} &= \alpha I - \mu R
\end{align*}
\]  
(1)

The following diagram is the compartment of measles transmission in population with preventive vaccine.

The mathematical model of the diagram above is
\[
\begin{align*}
\frac{dS}{dt} &= (1 - \varepsilon)\mu - \mu S - \beta SI \\
\frac{dI}{dt} &= \beta SI - \mu I - \alpha I \\
\frac{dR}{dt} &= \varepsilon\mu + \alpha I - \mu R
\end{align*}
\]  
(2)

where
- $S$ is the number of vulnerable populations the measles
- $I$ is the number of the population is infected
- $R$ is a population recovering from measles
- $\mu$ is natality
- $\beta$ is the rate of disease transmission
- $\alpha$ is the rate of recovery
- $\varepsilon$ is the rate of vaccination between $S$ and $R$

**Equilibrium Points**
From system (1), to obtain the equilibrium points of it, the right-hand side must equal zero.
\[
\begin{align*}
\mu - \mu S - \beta SI &= 0 \\
\beta SI - \mu I - \alpha I &= 0 \\
\alpha I - \mu R &= 0
\end{align*}
\]  
(3)
Since the last equation have no effect on the two previous equations, the last equation can be ignored first. Thus, we obtained two equilibria $(S,I)$, which are $T_1 = (1,0)$ and $T_2 = \left(\frac{\mu + \alpha}{\beta}, -\frac{\mu(\beta + \mu + \alpha)}{\beta(\mu + \alpha)}\right)$.

From system (1), to obtain the equilibrium points of it, the right-hand side must equal zero.
\[
\begin{align*}
(1 - \varepsilon)\mu - \mu S - \beta SI &= 0 \\
\beta SI - \mu I - \alpha I &= 0 \\
\varepsilon\mu + \alpha I - \mu R &= 0
\end{align*}
\]  
(4)
Since the last equation have no effect on the two previous equations, the last equation can be ignored first. Thus, we obtained two equilibria \((S,I)\), which are \(T_3 = (1 - \epsilon, 0)\) dan \(T_4 = \left(\frac{\mu + \alpha}{\beta} - \frac{\mu(1 - \epsilon) \beta + \mu + \alpha}{\beta (\mu + \alpha)}\right)\).

**Stability Analysis**

To do the stability analysis of system (1), a linearization is needed because (1) is not a linear system. For instance,
\[
\begin{align*}
 f_1(S, I, R) &= \mu - \mu S - \beta SI \\
 g_1(S, I, R) &= \beta SI - \mu I - \alpha I
\end{align*}
\]

Then,
\[
\begin{align*}
 f_{1S} &= -\mu - \beta I; f_{1I} = -\beta S \\
 g_{1S} &= \beta I; g_{1I} = \beta S - \mu - \alpha
\end{align*}
\]

The Jacobi is
\[
J = \begin{pmatrix}
-\mu - \beta I & -\beta S \\
\beta I & \beta S - \mu - \alpha
\end{pmatrix}
\]

For point \(T_1 = (1,0)\), the Jacobian matrix is given as follows
\[
J = \begin{pmatrix}
-\mu & -\beta \\
0 & \beta - \mu - \alpha
\end{pmatrix}
\]

\[
|\lambda I_M - J| = \begin{vmatrix}
\lambda + \mu & \beta \\
0 & \lambda - (\beta - \mu - \alpha)
\end{vmatrix} = 0 , \text{ where } I_M \text{ is identity matrix of } 2 \times 2.
\]

\[
|\lambda I_M - J| = (\lambda + \mu)(\lambda - (\beta - \mu - \alpha)) = 0.
\]

We obtained \(\lambda_1 = -\mu\) or \(\lambda_2 = \beta - \mu - \alpha\).

To make the system stable, it should be \(\lambda < 0\). \(\lambda_1\) is negative since \(\mu > 0\), and \(\lambda_2 < 0\) if \(\beta < \mu + \alpha\).

Taking \(\mu = 0.02, \alpha = 0.1,\) and \(\beta = 0.08\), we obtained the equilibrium point \(T_1 = (1,0)\). The behavior of system (1) is shown in the figures (Fig. 1 and Fig. 3)

For point \(T_2 = \left(\frac{\mu + \alpha}{\beta}, -\frac{\mu(-\beta + \mu + \alpha)}{\beta (\mu + \alpha)}\right)\), the Jacobi is
\[
J = \begin{pmatrix}
-\mu + \frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)} & -\mu + \frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)} \\
-\frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)} & -\frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)}
\end{pmatrix}
\]

\[
|\lambda I_M - J| = \begin{vmatrix}
\lambda + \mu - \frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)} & \mu + \alpha \\
\frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)} & \lambda
\end{vmatrix} = 0 ,
\]

\[
|\lambda I_M - J| = \lambda \left(\lambda + \mu - \frac{\mu(-\beta + \mu + \alpha)}{(\mu + \alpha)}\right) - \mu(-\beta + \mu + \alpha) = 0.
\]

We acquired \(\lambda_{3,4} = \frac{1}{2} \left( -\frac{\mu \beta}{\mu + \alpha} \pm \sqrt{\left(\frac{\mu \beta}{\mu + \alpha}\right)^2 - 4\mu(\beta - \alpha - \mu)} \right)\).

\[
\lambda_3 = \frac{1}{2} \left( -\frac{\mu \beta}{\mu + \alpha} + \sqrt{\left(\frac{\mu \beta}{\mu + \alpha}\right)^2 - 4\mu(\beta - \alpha - \mu)} \right) \text{ will be negative or}
\]
\[
\lambda_4 = \frac{1}{2} \left( -\frac{\mu \beta}{\mu + \alpha} - \sqrt{\left(\frac{\mu \beta}{\mu + \alpha}\right)^2 - 4\mu(\beta - \alpha - \mu)} \right) \text{ will be negative or}
\]
\[
\text{the real part is negative when for all positive parameters.}
\]
Taking $\mu = 0.02, \alpha = 0.1, \text{dan } \beta = 0.3$, we obtained the equilibrium point $T_2 = (0.4, 0.1)$. The behavior of system (1) is shown in the figures (Fig. 2 and Fig. 4).

To do the stability analysis of system (2), a linearization is needed because (2) is not a linear system. For instance,

$$f_2(S, I, R) = (1 - \varepsilon)\mu - \mu S - \beta SI$$
$$g_2(S, I, R) = \beta SI - \mu I - \alpha I$$

Then,

$$f_{2S} = -\mu - \beta I; f_{2I} = -\beta S$$
$$g_{2S} = \beta I; g_{2I} = \beta S - \mu - \alpha$$

The Jacobi is

$$J = \begin{pmatrix} -\mu - \beta I & -\beta S \\ \beta S - \mu & -\beta S - \mu - \alpha \end{pmatrix}$$

For point $T_2 = (1 - \varepsilon, 0)$, the Jacobian matrix is given as follows

$$J = \begin{pmatrix} -\mu & -\beta (1 - \varepsilon) \\ \beta (1 - \varepsilon) - \mu & -\mu - \alpha \end{pmatrix}$$

$$|\lambda_1 I - J| = \begin{vmatrix} \lambda + \mu & \beta \\ 0 & \lambda - (\beta (1 - \varepsilon) - \mu - \alpha) \end{vmatrix} = 0.$$  
$$|\lambda_2 I - J| = (\lambda + \mu) (\lambda - (\beta (1 - \varepsilon) - \mu - \alpha)) = 0.$$  

We obtained $\lambda_5 = -\mu$ or $\lambda_6 = \beta (1 - \varepsilon) - \mu - \alpha$.

To make the system stable, it should be $\lambda < 0$. $\lambda_5$ is negative since $\mu > 0$, and $\lambda_6 < 0$ if $\beta < \frac{\mu + \alpha}{1 - \varepsilon}$.

Taking $\mu = 0.02, \alpha = 0.1, \varepsilon = 0.3$ and $\beta = 0.08$, we obtained the equilibrium point $T_3 = (0.7, 0)$. The behavior of system (2) is shown in the figures (Fig. 5 and Fig. 7).

For point $T_3 = \left(\frac{\mu + \alpha}{\beta}, -\frac{\mu (1 - \varepsilon) \beta + \mu + \alpha}{\beta (\mu + \alpha)}\right)$, the Jacobi is

$$J = \begin{pmatrix} -\mu + \frac{\mu (1 - \varepsilon) \beta + \mu + \alpha}{\beta (\mu + \alpha)} & \frac{\mu (1 - \varepsilon) \beta + \mu + \alpha}{(\mu + \alpha)} - (\mu + \alpha) \\ -\frac{\mu (1 - \varepsilon) \beta + \mu + \alpha}{\beta (\mu + \alpha)} & 0 \end{pmatrix}$$
\[ |\lambda I_M - f| = \left| \lambda + \mu - \frac{\mu(1-\epsilon)\beta + \mu + \alpha}{(\mu + \alpha)} - \mu + \alpha \right| \lambda = 0 , \]

\[ |\lambda I_M - f| = \lambda \left( \lambda + \mu - \frac{\mu(1-\epsilon)\beta + \mu + \alpha}{(\mu + \alpha)} \right) - \mu(1-\epsilon)\beta + \mu + \alpha \]

We acquired

\[ \lambda_7, 8 = \sqrt{\frac{(1-\epsilon)\mu\beta}{\mu + \alpha}} \pm \sqrt{\left(\frac{(1-\epsilon)\mu\beta}{\mu + \alpha}\right)^2 - 4\mu(1-\epsilon)\beta - \alpha - \mu} \]

will be negative or the real part is negative when \( 4\mu(1-\epsilon)\beta - \alpha - \mu > 0 \) \( \Rightarrow \beta > \frac{\mu + \alpha}{1-\epsilon} \).

\[ \lambda_8 = \frac{1}{2} \left( \frac{(1-\epsilon)\mu\beta}{\mu + \alpha} - \sqrt{\left(\frac{(1-\epsilon)\mu\beta}{\mu + \alpha}\right)^2 - 4\mu(1-\epsilon)\beta - \alpha - \mu} \right) \]

will be negative or the real part is negative when for all positive parameters.

Taking \( \mu = 0.02, \alpha = 0.1, \epsilon = 0.3, \text{dan} \beta = 0.3 \), we obtained the equilibrium point \( T_4 = (0.4, 0.05) \). The behavior of system (2) is shown in the figures (Fig. 6 and Fig. 8).

**Conclusion**

It is acquired two equilibria in the population without vaccination, that are \( T_1 = (1, 0) \) and \( T_2 = \left( \frac{\mu + \alpha}{\beta}, -\frac{\mu(1-\epsilon)\beta + \mu + \alpha}{\beta(\mu + \alpha)} \right) \). In term of population with preventive vaccine, it is acquired also two equilibria, that are \( T_3 = (1-\epsilon, 0) \) and \( T_4 = \left( \frac{\mu + \alpha}{\beta}, -\frac{\mu(1-\epsilon)\beta + \mu + \alpha}{\beta(\mu + \alpha)} \right) \). Points \( T_1 \) and \( T_3 \) are called disease-free equilibrium because the infected population, \( I \), is 0. While, points \( T_3 \) and \( T_4 \) are called endemic equilibrium because the population of infected is exist.

The stability of the disease-free equilibria \( T_1 \) and \( T_3 \) occurs if \( \beta < \mu + \alpha \) and \( \beta > \mu + \alpha \) respectively. And the stability of \( T_3 \) and \( T_4 \) occurs when \( \beta < \frac{\mu + \alpha}{1-\epsilon} \) and \( \beta > \frac{\mu + \alpha}{1-\epsilon} \) respectively. While the stability of the endemic equilibrium holds for all the positive parameter values.

**REFERENSI**

SELF-AWARENESS: A PERSONALITY COUNSELOR

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ABSTRACT

Counseling is a relationship, a repertoire of interventions, a psychological process, and in terms of goals and clienteles. The intimate private counseling works with qualified counselors doing with clients. It is vitally important that a counseling professional is fully self-aware. Being able to self-reflect enables a counselor to identify and develop personal awareness, and to remain emotionally detached from the relationship he/she is developing with a client. The relationship of counselor and client has a significant value for a successful counseling. Counselors will naturally draw their own conclusions about self-awareness. Their work with clients may present many personal challenges, but also an on-going opportunity to assess personal strengths, feelings, thoughts and limitations, as they relate to other people. Understandably a counselor may also experience a sense of personal familiarity, whilst counseling clients must remain emotionally detached at all times. Self-awareness is something that grows over a period of time and with exploration. Techniques, to access information about oneself, can be learned, and personal experiences can affect personal thoughts and feelings. A counselor will experience all of these issues and concerns, and must use the knowledge gained to help their clients overcome their own personal issues. A person’s growth and understanding can only be assessed through self-awareness, and it is no different for those working in a therapeutic profession. Being continually open to personal, and career development will help a counselor fully understand their values and self.

Keywords: self-awareness, counselor

INTRODUCTION

Because of the intimately private counseling work that qualified counselors and psychotherapists do with clients, it is vitally important that a counseling professional is fully self-aware. Being able to self-reflect enables a counselor to identify and develop personal awareness, and to remain emotionally detached from the relationship he/she is developing with a client. Counselors will naturally draw their own conclusions about self-awareness. Their work with clients may present many personal challenges, but also an on-going opportunity to assess personal strengths, feelings, thoughts and limitations, as they relate to other people. Understandably a counselor may also experience a sense of personal familiarity, whilst counseling clients, but must remain emotionally detached at all times. Relating to clients, in a positive, open manner, encourages the client to disclose in a comfortable, confidential environment and provides the counselor with the ideal setting in which to communicate in a supportive way. Using their own life experiences, a counselor can demonstrate empathy, compassion and understanding without becoming personally involved in the counseling process.

Self awareness includes both a content dimension (what) and a process dimension (how). The components listed above are of what the counselor can be aware. The process dimension taps aspects of how the counselor reveals awareness through components such as concreteness or specificity (Carkhuff, 1969; Egan, 1975), ownership or responsibility (Livitsky & Perls, 1970; Miller, Nunally & Wackman, 1975) immediacy and experiencing (Gendlin,
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The process components of client exploration (e.g., Schauble & Pierce, 1974), integration and assimilation (Polster & Polster, 1973), have been traditionally investigated as elements of client exploration. Counseling courses, however carefully constructed or theoretically well-informed, do not adequately prepare the counselor to face the exigencies of clinical practice. Courses cannot achieve, within a limited period, and when faced with competing demands, the complex process of forming a counselor. Becoming a counselor, and growing as a counselor, requires me to reduce my defensiveness and increase self-awareness, in short, to take a closer look at myself, the self that I bring to the counseling room. Counselor self-awareness is considered an important aspect of counseling effectiveness according to the American Counseling Association and the American Psychological Association and in numerous studies and articles within the counseling literature.

A comprehensive review of the literature on self-awareness revealed that there is little discussion of the construct of self-awareness and/or it is outdated, making its definition difficult (Richards, Campenni, & Muse-Burke, 2010). Jevne’s (1981) survey provides a useful focus for efforts to clarify the nature of self awareness and the effective counselor. From our experience in counselor education, training and practice, self-awareness is essential in the cognitive and emotional development of an effective counselor. Self-awareness (SA) refers to an individual’s awareness of his or her feelings, as well as an understanding from where these feelings originated and how these feelings impact, and are impacted by others. Burwell-Pender and Halenski (2008) declare that with increased levels of self awareness, a counselor is able to differentiate and put aside personal needs in order to best serve the client while maintaining professional boundaries. This idea of counselors being able to differentiate and put aside personal values while working with clients is closely associated with countertransference.

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Self-awareness is also an intrinsic component of the counselor’s characteristics and thus the therapeutic alliance. The need for counseling professionals to increase their self-awareness can be traced back to Freud himself who asserted that it was necessary in order to minimize the potential detrimental effects of counter-transference on the counseling process (Oden, Miner-Holden, & Balkin, 2009).

Counseling is one profession where the practitioner is in fact the tool of his or her trade. It is our character, and our self-awareness, that enables effective, competent practice. Counseling is finding out that who I am dictates how I journey with a struggling client. What has emerged from the literature on counselor training and clinical practice is an acknowledgment of the importance of the personal development of the counselor as an integral part of professional development. Unhelpful beliefs, unrealistic expectations of self, and acceptance of an unreasonable level of responsibility towards the client are accelerators of stress. The practice of counseling, with its emphasis on confidentiality, can be of itself an isolating experience. Self-awareness, which contributes to counselor development and effectiveness, can have an unnerving effect when the impact is not managed by self-care and in-session strategies to reduce the impact. Self-disclosure, which used appropriately, builds trust and rapport, can leave us feeling vulnerable and exposed. Self-exploration, self-disclosure and asking for feedback are means of heightening self-awareness and essential to our facilitating the same process for clients, however, these often exact a price, one of increasing our stress levels, with predictable consequences for our relationships and ourselves.

Counselors historically have considered counselor self-awareness to be an important aspect of counseling effectiveness (American Personnel and Guidance Association, 1965; American Psychological Association, 1954; Bernard, 1989; Blackburn, 1979; Drapela, 1983; Eppinger, 1996; Kagan, 1980; Krumboltz, 1966; Locke, 1993; Ohlsen, 1970; Truax & Carkhuff, 1967. The American Counseling Association’s (ACA, 2000) code of ethics referred to awareness several times, including the following (a) Counselors are aware of the intimacy and responsibilities inherent in the counseling relationship. b) Counselors are aware of their own values, attitudes, beliefs, and behaviors and how these apply in a diverse society, and avoid imposing their values on clients and (c) Counselors are aware of their influential positions with respect to clients, and they avoid exploiting the trust and dependency of clients. Carl Rogers...
viewed awareness in operational terms and described it in the following passage, there is a formative directional tendency in the universe, which can be traced and observed in stellar space, in crystals, in microorganisms, in organic life, in human beings. This is an evolutionary tendency toward greater order, greater interrelatedness, and greater complexity. In humankind, it extends from a single cell origin to complex organic functioning, to awareness and a sensing below the levels of consciousness, to a conscious awareness of the organism and the external world to a transcendent awareness of the cosmic system including people.

The construct of counselor self-awareness has historically been considered important within the counselor education literature, along with studies conducted in other areas of mental health practices (American Personnel and Guidance Association, 1964; American Psychological Association, 1954; Bernard, 1989; Blackburn, 1979; Eppington, 1996; Kagan, 1980; Krumbloltz, 1966; Ohlsen, 1970; Truax & Carkhuff, 1967). Recently, other personal aspects of the counselor including the need for increased cognitive complexity have been emphasized instead of the need for counselor self-awareness (Sexton, Schofield, & Whiston, 1997). Additionally, there is increased emphasis in the counseling literature for counseling within decreased periods, that is, brief therapy models. When considering the need for counselors to provide their clients with models for developing adaptive skills and strategies that can be used in dealing with increasingly more complex personal and environmental demands, the current values and relationships between counselor self-awareness and counseling effectiveness need further definition.

Although self-awareness in therapist is considered important, and since many psychotherapists spend time attempting to promote self-awareness in their patients, it is surprising that so little formal promotion of self-awareness in therapists takes place (Blackburn, 1979; Chen, 1998; Salmon, 1972; Shub, 1994). Moore (1987) stated that no formal model has been advanced to develop this portion of clinical training, and very little subsequent published research addresses the development of counselor self-awareness. The importance of self-awareness is widely acknowledged in the counseling profession as one of the few constructs embraced by nearly all theoretical orientations (De Stefano et al., 2007; Hansen, 2009; Miller et al., 2008). Self-awareness (SA) is defined as counselors-in-training understanding of how their past and current personal lives, as well as their attitudes, biases, and values, affect their clinical practice, so that they can use their emotional responses to their patients and own benefit (Saunders et al., 2007). Richards, Campenni, and Muse-Burke (2010) refer to self-awareness as knowledge about the self; an internal awareness of one’s behaviors, emotions, and cognitions. Self-awareness is an evolving process of self-observation, happening in both the here-and-now and then-and-there (Yalom, 1980). As an individual increases his/her level of self-awareness, she/he will better understand why and what one feels, as well as the behaviors that follow. This understanding of what we as therapists feel and why and consequently how we respond and act during the therapeutic process is critical (Aponte & Carlser, 2009; Guiffrida, 2005, Yalom, 2005).

The counseling profession is quite unique. It’s profession that requires practitioners to employ interventions beyond learned knowledge or acquired skills. Counselors are also required to incorporate self into their counseling practice, a task not easily accomplished. Counselor educators have the difficult role of training individuals to become competent in profession of counseling. In fact, the Council for Accreditation of Counseling and Related Educational Programs (CACREP; 2009) states competent professionals are individuals who have mastered the knowledge and the skills to practice effectively and who have developed a professional identity. Comstock (2005) asserts the need for developing self-awareness for the purpose of increased authentic relating and the development of an understanding of one’s relational movements; done in, not out of, engagement. This includes recognition of our personality, our strengths and weaknesses, and our likes and dislikes. Self-awareness is often a prerequisite for effective communication and interpersonal relations, as well as for developing empathy for others (Hansen, 2009).

The idea that higher levels of counselor self-awareness are related to enhanced counselor therapeutic effectiveness has appeared in the professional mental health literature, CACREP standards, theoretical writings, and research articles since Freud (Oden et al., 2009).
A qualitative study conducted by Norem et al. (2006) revealed stellar supervisees possess high levels of self-awareness; defined as having the ability to identify weaknesses and strengths, self-monitor, and being acutely aware of their emotional experiences and reactions in sessions with clients. They found the personal qualities of counselors are better predictors of clinical performance than intellectual ability.

The American Counseling Association’s (2005) code of ethics and CACREP’s (2009) standards state a need for counselors to become aware of their values, biases, beliefs, and interpersonal dynamics in order to best serve culturally diverse clients (Sue & Sue, 2003). Yalom (2005) asserts counselors are only able to serve clients needs by first being acutely aware of one’s own struggles, strengths and weaknesses. This study provides insight into determining how well counselor education programs pay attention to cultivating self-awareness and which methods, strategies, and processes are best at doing so. Counselors will naturally draw their own conclusions about self-awareness. Their work with clients may present many personal challenges, but also an on-going opportunity to assess personal strengths, feelings, thoughts and limitations, as they relate to other people. Understandably a counselor may also experience a sense of personal familiarity, whilst counseling clients, but must remain emotionally detached at all times.

CONCLUSION

The greater the awareness counselors possess about their own selves, the greater their ability to develop a deeper knowledge and/or acceptance of their clients (Ronnestad & Skovholt, 1993). Raising self-awareness is essential for counselors to be authentic and genuine because they cannot teach what they do not know (Yalom, 2005). The arena of the counselor’s self has been under researched, particularly from a trans-theoretical perspective Reupert, 2006). Schaeffer (2007) declared graduate training programs do not sufficiently address counselors’-in-training personal issues, despite the fact that developing self-aware counselors is essential during training. Hansen (2009) claimed there has been no critical appraisal in the counseling professional literature of how counselors become self-aware.

The American Counseling Association stresses that counselor self-awareness (SA) is a critical aspect of counselor effectiveness (ACA, 2005). Counselors are responsible for their personal wellness and awareness of their impact on clients (ACA 2005; AMHCA, 2010; CACREP, 2009). The code of ethics of the American Mental Health Counselors Association (2010) requires counselors to have self-awareness of their knowledge, values, skills, and needs when entering into a helping relationship. Counselor education programs, supervisors, and counselor educators have a professional responsibility to foster self-awareness in CITs (ACA, 2005). CACREP supports the idea of the saliency for Counselor Education Programs to provide space for CITs to cultivate SA (Oden, et al., 2009). The 2009 CACREP standards state students must “demonstrate self-awareness, sensitivity to others, and the skills needed to relate to diverse individuals”. ACA’s (2005) code of ethics and CACREP’s (2009) standards clearly state a need for counselors to become aware of their values, biases, beliefs, and interpersonal dynamics in order to best serve culturally diverse clients (Sue & Sue, 2003). Yalom (2005) asserts counselors are only able to serve clients needs by first being acutely aware of one’s own struggles, strengths and weaknesses.

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GROWING NON-ENGLISH STUDENTS’ CONFIDENCE THROUGH LEARNER-CENTERED APPROACH AS A WAY TO ACHIEVE 21ST CENTURY GOAL

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ABSTRACT

The changing from teacher-centered to learner-centered approach in learning English brings a new vision about what class should be. Teacher must be more and more creative in managing a class and even creating a new material which catches students’ attention as well as lead them to master the skill they need to have for surviving in 21st century. Emphasizing on soft skills, students are expected to be ready to face globalization era, no exception for Non-English students. The soft skills that the students need are critical thinking, problem-solving, collaboration, and creativity. It considers as challenging especially for students who do not come from English background study. Verbal presentation is chosen as one kind of method to help students become accustomed to be the center of learning. This paper aimed to investigate how verbal presentation, as one of learner-center methods, was implemented effectively for Agriculture Students of Brawijaya University Malang, especially in English class. The participants were taken from non-English students in their 1st semester of Agribusiness Department in Faculty of Agriculture, Brawijaya University. The data was obtained in three ways by using interview, observation, and documents. The data showed how verbal presentation helps non-English students “stand at their own feet” and be more confident to face the coming of international challenge.

Keywords: learner-centered approach, 21st century, non-English students, soft skills, verbal presentation.

INTRODUCTION

Some of the challenges which come along within 21st century life cannot be ignored anymore. The challenges are not only occurred in education but also in some aspects of life, such as economic, social, and cultural. Nowadays, students are in charge of possessing academic knowledge as well as being able to resolve some complex problems by using it. The knowledge that they have already mastered should be communicated, used, and shared as a solution for those problems. In 21st century life, students need a power to adapt into new circumstance which changing rapidly by utilizing those skills to respond the demand of the actual condition. Students as today generations should be a strong generation to face those challenges in order to survive in this century. Emphasizing more in how they acquire only academic knowledge will not help them to deal with those challenges, because the standard is changing.

“The mental tasks of knowledge work—accessing, searching, analyzing, storing, managing, creating, and communicating information and knowledge—are becoming easier and more efficient as our digital tools for thinking, learning, communicating, collaborating, and working become more powerful, integrated, connected, and easier to use. These 21st century companions are helping more and more of us meet the demands of our times effectively and creatively.” (Trilling and Fadel, 2009)

The development of 21st century is not only talking about how students are able to pass the exam and graduate by utilizing the academic knowledge which they got during the school days, but also how they be able to transform it into a deeper understanding. That understanding will lead them to be a creative thinker, problem solver, leader, and good in collaborating during group work as well as be able to communicate in both verbal and written communication.
Those competencies are needed for them to be successful in both work and life in the future. As teacher, we must aware that students need not just simply mastering academic knowledge but also some competencies that unconsciously important to promote their academic potential.

Competencies are closely related to both skill and knowledge. According to Organization for Economic Co-operation and Development (OECD, 2003), competencies involve the ability to meet complex demands, by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. Competencies comprise more than just academic knowledge. It requires the support of the basic hard skills of reading, writing, speaking, and listening; and also soft skills which refer to creative thinking skills of solving problems and responsible in making decision; and also the personal qualities of individual responsibility, sociability, self-management, self-esteem, and integrity. These competencies are strongly related to soft skills. One thing for sure, strong background in traditional hard skills will always have its place in academic and career worlds, but in today worlds we should realize that more companies are looking for prospective employees with amazing soft skills. A number of graduate students maintain a good hard skill but not for soft skill. One thing for sure, both skills are needed to be survived in the 21st century.

Holmes (2014) encloses soft skills into the ability in easily adapting into the changing circumstances and the willingness to learn through experiences which are applicable across multiple disciplines and careers. A lot of complain come through decade about the difficulty to recruit an employee who gains both skills perfectly. It underlies the reason behind how important to develop students’ soft skills from the college time until they graduate and enter the workforce. Soft skills, according to Holmes (2014) are divided into five, communication (interpersonal skills), collaboration, problem solving, time management, leadership, and problem solving. Still stand on the same perspective, Rachel Roberts (2015), in the article entitled what’s new in English Language Teaching? Published by British Council, mentions three soft skills such as critical thinking, problem-solving, and collaboration. Those skills consider as the most important skills in 21st century world. Pacific Policy Research Center (2010) mentioned creativity and innovation as a skill that students ought to have in 21st century. Creativity is essential in both education field and future work field. Creativity can be nurtured by teachers and learning environments that encourage questioning, openness to new ideas, and learning from mistakes and failures (Trilling & Fadel, 2009). Those skills which have mentioned above can be developed with practicing continuously over time (Wegerif & Dawes, 2004).

There are four hard skills in English which students need to master during the school days, namely writing skills, reading skills, listening skills, and speaking skills. Those usually become a benchmark of English academic assessment. However, during these years, especially when there is a shift from the last curriculum into a new one, that is famous as K-13, hard skills are not the only consideration for students assessment during teaching and learning process. Character building turns out into one important consideration to be assessed. To build the character, students ought to sharpen the soft skills through the classroom context.

English is still seen as foreign language in Indonesia. But nowadays, the demand in mastering English vigorously needs to be fulfilled, no exception in either education or work field. English considers as an important subject in education and students necessarily need to pass the score during the final examination. Furthermore, for the one whom desirous to be a scholarship seeker, the ability in using English actively will give more chance. In work field, English is one of the leading requirements during the selection process. The one who obtains the best or higher score in English test will get a bigger opportunity to be selected, particularly in the international company or institution. This distinctness established an extra duty for students to be able to reach the higher graduate standard in the future, especially in learning English as a foreign language. For students with English education background, it may be easy for them. The question rises when talking about non English students who are not surrounded by English environment continuously.

Brown (2003) stated that during the past decade, there has been a call in higher education for a shift from teacher centered approach which focuses on teacher’s instruction into learner-centered approach of pedagogy. This shifting portrays a democratic approach to teach by...
changing the instructor from the center of learning into a more peripheral position (Moate & Cox, 2015). This change has an objective to increase students’ opportunity in participate actively during teaching and learning process and also engage self-directed learning outside the classroom, as well as providing forums through which they can share learned information with peers (Wright, 2011). Engaging the new curriculum K-13 which students need to be the center of learning, learner centered approach should be implemented effectively for the university students as well. For English class, particularly, this approach gives a big chance for the students to be able to dig deeper and practice more of both English hard and soft skills.

Hayati (2010) did her study in empowering non native English speaking teachers through critical pedagogy. Critical pedagogy had an objective to develop students’ critical thinking, political and social awareness, and self esteem through dialogue learning and reflection. The researcher believed that this pedagogy embraced the potential to empower non native English speaking teachers (NNESTs) when it was incorporated into English teacher education programs. She intended to show that this issue was something worth to be discussed hand in hand with a lot of challenges appeared during the implication. The study concluded that critical pedagogy should be given a place in the curriculum of English teacher education in Indonesia as a way to improve their self esteem and critical thinking and lead them to have awareness of political and sociocultural issues and desire to make social changes ways that empower them.

Another study was done by Mistar and Umamah (2014). They studied some strategies in learning speaking skill of English to contribute the speaking proficiency of Indonesian learners. This study was a report research in skill-based English learning strategies by Indonesian EFL learners that focused on answering two research problems. The first one was how gender differences influenced the use of learning strategies in speaking skill, and the second was how learning strategies in speaking skill contribute in learners’ speaking skill. The findings showed that gender differences gave a significant effect in the intensity of using strategies in learning speaking skill. And the result of the study discovered that strategies-based instruction needed to be integrated explicitly in the speaking class to help learners, particularly male learners cope with problems in learning speaking skill.

Standing at different perception, this study was focused on how verbal presentation, adapting from learner centered approach, could offer an improvement for students’ speaking skill as well as sharpen their confident in using English effectively during learning process in the classroom context. Therefore, this study was attempted to answer one question: how big is the influence of verbal presentation for growing Agriculture students’ confident in using English.

THE PARTICIPANTS OF THE RESEARCH

Brawijaya University, usually known as UB, is one of the Universities in Indonesia that implements English as the major subject in all the faculties. UB is located in Malang and has more than 50 thousand students from various strata ranging from Bachelor, Master and Doctoral programs. Faculty of Agriculture was the oldest faculty in UB. In facing International development, Faculty of Agriculture has a mission to conduct teaching and learning activity, research and community service in agriculture field and natural resources management with global horizon. One-step ahead that has been done by Agriculture faculty is making the English subject as the compulsory course. Student of Agriculture faculty in the first year of college will have to learn English for 3 credits.

The allocation of the credits is 2 credits for English for Specific Purpose (ESP) class focuses on English for Agriculture, and 1 credit for English practicum which is decided as TEOFL preparation. The course description of English for Agriculture is improving the students’ mastery in English related to agriculture area, especially in comprehending and presenting agriculture scientific article in English forum. This course description brings Agriculture students who are not come directly from English Department educational background an extra duty to mastering English skills to help the faculty in receiving the future mission. The participants of the research were first semester students of Agribusiness Department in Faculty of Agriculture, Brawijaya University. In one class, there were 32
students who come from various study background of senior high school. This research was conducted in the English for Agriculture class during four meetings.

METHODOLOGY

This study was conducted by using Qualitative research which was famous as case study. Case study had been used particularly to study about a phenomenon with a depth understanding. It provided a depth description of a single entity that could be an individual, a group, a site, a class, a policy, a program, a process, an institution, or a community. It was a single occurrence of something that the researcher interested to examine (Ary et al., 2010). A case study typically consisted of a description of an entity and the entity’s action by including the explanation of why the entity acted as it did. This study could be used in social sciences as well as practice oriented fields (such as education, public administration, medicine, management, and so on) (Starman, 2013). One of the advantages which could be attained from this study was the researcher would be able to discover multiplicity factors which had interacted to produce the unique characters of the entity as the subject of the research (Thomas, 2003). Because of that, case study specifically used multiple data collection technique.

During this research, four instruments were used in the process of collecting data. Those instruments were namely documentary, interview, and classroom observation. The first instrument was the documentary. For supporting the data of this research, the course outline of English for Agriculture in Faculty of Agriculture, Brawijaya University was reviewed purposively to collect the information about the description of the course to discover the goal at the end of the course. It must be underlined that teaching non-English students was basically similar in many ways in the principles of teaching English students, the set of indicators that teachers needed to assess were different. These indicators had the strong relationship with the goals at the end course. The course description review became a reference for need analysis of the course.

The second instrument was interview. There were five representatives of the students were invited as the respondents. The interview was conducted once and the respondents were chosen randomly. The interview done by asking five questions related to the verbal presentation to improve their speaking skills as well as how was the impact to their growing confident in the class. It was done to obtain some data related to figure out whether the verbal presentation really extended for the students confident. The questions used in the interview were open-ended questions. Open ended questions were beneficial to enrich the data from the respondents so that the researcher would get a deep understanding toward the case. Creswell (2012) stated that open-ended questions would let the participant express his/her idea from any perspectives. For the interview, the lists of the questions were used. These questions were known as guided questions. According to Thomas (2003), a guided questions interview began with a prepared questions then the researcher would create a follow up questions intentionally to inquiry the logical extensions of the answer from the respondent. Moreover, Borg and Gall (1983) stated that the list for interview made the researcher easily met the objectives and it might standardize the situation. The language used for the interview was Bahasa Indonesia with the consideration that during the interview the respondents had to understand the all questions correctly and clearly, so the target data could be collected easily.

The last instrument was classroom observation. Classroom observation was done in four meetings during English class. This instrument had an objective to figure out the authentic data from the students’ performance in the class. During this observation, a checklist was used to gain the data and the lecturer became the observer itself. The checklist consisted of some information related to students’ learning process. The information checked the learning condition and process referred to students’ active participation in the classroom context. The information from observation was important to detect whether the verbal presentation which students did during classroom context really made an influence impact to the students’ confidence.
FINDING AND DISCUSSION

The data collection had been done in four meetings. From the first instrument, documentary, it showed that the faculty had a desire to make students mastered all of hard skills in English specifically listening, reading, writing, and speaking skills. Furthermore, those skills had to be connected with academic purposes and also the expertise area, Agriculture area. There were three points which could be highlighted. First, Agriculture students had to improve their ability in comprehending English text for academic purposes. It was correlated with reading skill improvement specifically in English for Agriculture texts. Second, not only comprehended, Agriculture students must be able to read and summarize Agriculture scientific discourses written in English. When we talked about reading and summarizing, actually both could be done by improving reading as well as writing skill, all was depended on the concern. And the last, Agriculture students should be able to represent scientific articles verbally in a forum. It was strongly connected with speaking skill and also listening skill. Listening skill was needed in this case, because in a forum seminar, there was always a discussion session. At this point, students should be able to understand the intended meaning of the questions and answer the questions exactly. In short, it could be concluded that Agriculture students, at the end of the course needed to be able to possess the ability in understanding Agriculture texts and articles written in English as well as representing it to a big forum seminar.

In English, those four skills were categorized into two types, receptive skill and productive skill (Harmer, 2007). In Receptive skill, reading and listening were included. During reading and listening process, the learners extracted the meaning through a discourse. So, there was a lot of information obtained from the process. In Productive skill, speaking and reading were included. During the productive process, the learners had to produce language themselves. To conclude, Agriculture students must be able to activate both types of skill during the course. For English students, the ability to use those skills might be something ordinary. But it was different when it came into Non-English students, such as Agriculture students. For agriculture students, to overcome the challenge in 21st century, especially connected with English language was not an easy deal.

In consequence, language enacted an important role in teaching and learning process of science. Learning science was easy if the language used was the learners’ first language, then how it worked when the learners demanded to catch the science knowledge as well as found the meaning of some foreign vocabularies they did not understand before. Firstly, teachers needed to determine the learners prior knowledge then concluded what treatment they needed to get. English in Indonesia still considered as foreign language. In 21st century, almost everyday students were exposed in English outside the classroom. The development of technology brought English into their everyday life, for example, the availability of smart phone and internet connection. But when it came into English in classroom context, it would draw another challenge. English (foreign language), as a subjects demanded students not only communicate in class but also used it as a medium for learning the subject of the course.

The challenge not only intimidated the teachers, but also students as well. Because it would be a bit difficult to learn a particular subject in English while all of the learners not acquired the same ability in using it. Many students exposed to English in their formal school context, but not in their everyday environment outside. Automatically, their opportunity to practice became lesser (Ferreira, 2011). While receptive skill could be trained outside the class, the fact showed that learning English in the classroom context was the only media for the students to sharpen their productive skill. Learning Agriculture English was somewhat different with general English. Additional supports were needed for Agriculture students to help them developed their English language skill. The reality showed that Agriculture students faced science through foreign language. Wellington & Osborne (2001) stated one of the major difficulties experienced by learners when learning science was learning the language of science. To do well learners should be able to “extend their knowledge of concepts beyond basic vocabulary and be able to engage in, and manipulate the appropriate discourse” (Schaffer, 2007).

Another data came from interview. From overall questions, all the respondents chosen speaking skill as the most important skill in English language, then followed by listening, reading, and writing came in the last order. The reason behind the choices was unique. Three of
the respondents expressed their thought about speaking skill as the main skill they should possessed in order to survive in the future especially when they were abroad. Generally, most of the students in Faculty of Agriculture were prepared academically to be able to study abroad. One of the interviewee took up the topic of introvert and extrovert personality which would limit students’ ability to express their thought during teaching and learning process in classroom context. This topic brought up the different confidence of each student that became the main attention in this study. Students with extrovert personality had a tendency to be able to express something freely than others. Introvert personality loved to keep silent and observe, but it did not mean they did want to say something.

Although it might became an obstacle for some students, but teachers played a big role to maintain this. Learners centered approach was a solution to this obstacle. Learners centered approach was also famous as students centered. From the name we could conclude that it was a learning environment where students became the center of learning then teacher acted as facilitator to guide them. Jones (2007) stated that:

“In a student-centered class, students don’t depend on their teacher all the time, waiting for instructions, words of approval, correction, advice, or praise. They don’t ignore each other, but look at each other and communicate with each other. They value each other’s contributions; they cooperate, learn from each other, and help each other. When they are in difficulty or in doubt, they do ask the teacher for help or advice but only after they have tried to solve the problem among themselves. The emphasis is on working together, in pairs, in groups, and as a whole class. Their teacher helps them to develop their language skills”

Student centered classroom lead the students to participate actively in the learning process. Teacher invited students to be active during the process. Students centered instruction turned down teacher centered instruction. Teachers were not the one who knew everything and there was no authoritative role of teacher because teacher was only the facilitator. In the class, teacher gave an opportunity for students to participate actively in class without fear of being scolded (Brown, 2015). Teacher had role as a guide and manage the activities. Students centered classroom could be done individually or in a group (big or small group). In my opinion, students centered approach would not only help students sharpen hard skill but also soft skill as well. For example, conducted group work would help them interact effectively with their group member or partner. It would teach them to grow their collaboration competence to manage not only their emotional feeling, ability to cooperate, and also their creativity in solving the problem they faced. Students centered approach also could be used to make students familiar with scientific approach in learning. Scientific approach required students to discover the knowledge they should learn during teaching and learning process. Scientific approach started with observing, questioning, experimenting, associating, and communicating. By applying scientific approach, teacher built a bridge for students to bridge their creative and critical thinking. In the 21st century life, the ability in working creatively and critically as a team would be crucial. So, this approach would help students to be prepared and ready for the future challenge.

Productive skills, including speaking and writing skill also could be trained through students centered approach. Related to speaking skill, Harmer (2007) mentioned that getting students to speak in a good atmosphere class could sometimes be extremely easy. For students whose English was at an appropriate level, they would participate enthusiastically and freely. In a big class, with different English proficiency, not all the students were willing to speak. Some of them might be reluctant to speak because of some reason. It could be the topic was not interesting or suitable, or they might be less confidence. Reluctant students found themselves too shy to express their thought or feeling in front of people. Some of them were too scared to make a mistake then chose to keep silent all the time. These reluctant students needed to be cured, and the one who could help them was the teacher. Based on Harmer (2007), there were some conditions which should be understood regarding to reluctant students. First, reluctant students needed more preparation to speak than others. Watson (2005) described the value of planning and rehearsal for speaking success, in the case of these students, preparation would make their speaking performance better because they had more time to plan their utterances.

A major reason for students’ reluctance during speaking activities was they found themselves difficult or nervous to talk in front of a lot of people or a big group. They felt less
confidence in talking in front and their hand shaking so hard sometimes. In addition, actually some reluctant students were scare that their friends would make fun of them. To propose a solution, there were some activities in speaking activities which could help them to grow more confidence especially in speaking skill. The first one, teacher could initiate to give role play or drama as a group task. In this role play, students had to create a script related to the topic given. Then each student got their own role from the script. It should be noted here, students should be participated equally in a group. During the assessment process, teacher must observe it deeply to find out whether the role of each student had already equaled. Another activity to polish students speaking skill was group presentation. In this activity students were asked to discuss in a group about a material, related to science specifically. Each group would get their own topic of presentation. While other group was presenting, the rest group had to listen carefully then took a note of what they got from their friends’ presentation. Both activities could be implemented to help students in growing their confidence.

During my observation in a classroom, these two activities were applied for my students. In the first meeting, I asked my students to do role play in a group for next week. I chose the group randomly consisted of 5 students in a group. Then I told them to make a short script by using simple tenses such as simple present, past, future, and present perfect tenses. The topic was chosen by considering that it was the first meeting, and those tenses could be used as warming up activities before took a step in Agricultural matter. During the role play performance on the second meeting, all the member of the group really played a good job. They got the role equally and could perform well. Although, as observer, and considering that they were a freshmen of Agriculture students, they really made it. The classroom observation continued with the next activities which was group presentation. In this activity, students were asked to read an agriculture text written in English. They had to discuss it in a group than made a presentation slide to be presented next week. This time, the group was different with the first one but the rule was still the same. All the member of the group should took an equal role during presentation. The result on the next meeting showed that the students were really enjoyed this activity a lot. Many students started to participate actively during the discussion session. Although their ability in English still remained the same, but the environment was quite different than before. It became more enjoyable and fun as well. The influence was not only seen during the speaking activities. The participation table was moving up. More students were brave enough to answer the questions given. Many of them also confident enough to ask to the teacher about something they did not understand. The interaction in the class became brighter than before. It showed that those activities, related to verbal presentation, gave a big contribution for growing students’ confidence, creativity, and creative thinking as well as collaboration in group work.

CONCLUSION

Based on finding and discussion, learner centered approach should start to be implemented continuously during teaching and learning process. It is necessary for students to be the center of learning because by giving them an extra role in the class, they will become more responsible and confident. Whether it is English students or Non-English students, teachers should aware about their students’ condition and personality in order to help them improving both hard skill and soft skills in English language for their future life. Although all English skills are important, the finding shows that speaking skill still considers as the most crucial skill in 21st century for most of the students. Related to speaking skills, a challenge appears within the students’ confident in the class.

The reality discovers that some students are confident enough to speak up their thought and feeling in front of the class, but some of them still reluctant to do it. Teachers play a big role in this case by playing a role as facilitator who will be ready to help and guide students anytime during the learning process. Some activities in teaching and learning process should be set appropriately to excavate students’ ability even deeper than before. In speaking skill, teachers can utilize and adapt a lot of fun activities according to students’ concern. By accustoming students with group work activities, they will be able to socialize with others. It will help them
to stand in their own feet in the future by not only acquiring both soft skills and hard skills in English language.

REFERENCES
Biodata

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INCLUSIVE EDUCATION SYSTEM AS EDUCATION SERVICE FOR EARLY CHILDHOOD WITH SPECIAL NEEDS

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ABSTRACT

Early childhood with special needs is a group of children aged from birth to age 6 who have special needs that must be served. Special needs children are possessed by a child’s inability to optimize the ability of physical, emotional, social, language, etc. that require special services in accordance with the child's condition. One is educational services for early childhood special needs to be equal with their peers. Educational services for young children with special needs do not have to always be in the Special Needs School. But it can also be given in regular schools with inclusive education system. Inclusive education system is the education system that accommodates children with special needs with their peers at regular schools. Early childhood special needs education outcomes are comparable with their peers. Educational services for young children with special needs in early childhood Inclusion aims to increase access to early childhood services for children with special needs.

Keywords: Inclusive Education System, education Service, Early Childhood with Special Needs

BACKGROUND

Getting a proper education is the right of every citizen of Indonesia, including early childhood education. Early childhood is a group of children aged from birth to 6 years. Early childhood is a group of children who are in the process of growth and development that is unique. Sujiono (2013) explains further that early childhood is a unique individual, where he has a pattern of growth and development in the physical, cognitive, socio-emotional, creativity, language and communication that is specially according to the stages that are passed by the child.

Early Childhood Education basically does not be compulsory to be taken, but rather suggestions (Santoso, 2008). If people are aware of the benefits of early childhood education for the especially golden age there can be maximized so that children growing up to be an amazing individual, society certainly be chosen to provide education for their children from an early age. Law Number 20 in 2003 about National Education System Section 28 paragraph 1 explains education for early childhood education which held for children from birth up to the age of six years and is not a prerequisite participate in primary education.

Early childhood with limitations on aspects of development (cognitive, physical and motor, language, social, emotional, moral values) are also entitled to the same education with their peers. Early childhood with special needs is a group of children aged from birth to 6 years who have limitations and constraints on development aspects that require specialized services. Special services are given according to the conditions and needs of children. It aims to the early childhood with special needs get the same service as their peers, including educational services.

Educational services for the early childhood with special needs not only given in the Special School. But, as the development in the early childhood education with special needs can acquire early childhood education services in the regular system of inclusive education or inclusion early childhood education. Inclusion Early childhood education is a school that unify the early childhood with special needs with their peers in same school and get same educational services with their peers. Educational services for the early childhood with special needs in...
Inclusion early childhood education aims to increase access to early childhood services for children with special needs.

The purpose of this study was to examine through some literature and the condition in the field of Inclusive Educational System as educational services for early childhood with special needs.

**DISCUSSIONS**

**Early Childhood with Special Needs**

Early childhood has a meaning individuals who have a rapid development and fundamental to the next age. NAEYC (National Association for the Education Young Children) in Santos (2008) interpret early childhood is children who are at the age from birth to eight years. Law Number 20 in 2003 about National Education System Section 28 paragraph 1 explains education for early childhood is education which held for children from birth up to the age of six years. So it can be seen that early childhood according to the National Education System is a group of children aged from birth to six years.

Sujiono (2013) explains further that early childhood is a unique individual, where he has a pattern of growth and development in the physical, cognitive, socio-emotional, creativity, language and communication that is specially according to the stages that are passed by the child.

In addition, in this period of early childhood experienced a golden age. At this time nearly all potential child has sensitive period to grow and develop fast and furious. Suyadi (2014) described the findings of neuroscience shows that the brain child when the child is born brain cells reached 100 billion have not interconnected but a little. When a child enters the age of 3 years, brain cells has established 1,000 trillion connections / synapses. This is 2 times more than that of adults. Efforts to achieve the optimal development of these connections should be reinforced through a variety of stimulation or stimulation because connections is seldom used will die, while frequently used will be stronger and permanent.

Smith (2006) explains that the influence of the most striking and can leave a long impression made at the right time, which is during the critical or sensitive period. So that at the critical period of early childhood services should be given appropriate stimulation in accordance with the stages of his age. Stimulation given to aspects of child development is the development of cognitive, physical and motor development, language development, emotional social development, development of moral and religious values, and development of art. In order for children to develop optimally, then stimulation should be given gradually and continuously. Delay or ignoring giving stimulus at the right time will have negative impacts on child development. This will cause developmental delays in children.

WHO (2012:12) explain that developmental delay refers to children who experience significant variation in the achievement of expected milestones for their actual or adjusted age. Developmental delays are caused by poor birth outcomes, inadequate stimulation, malnutrition, chronic ill health and other organic problems, psychological and familial situations, or other environmental factors. While developmental delay may not be permanent, it can provide a basis for identifying children who may experience a disability.

Early childhood with special needs is a group of children aged from birth to 6 years old who have barriers to the development aspect. Early childhood with special needs have characterized the impairment on visual, hearing, cognitive, physical, social, emotional, behavioral and language. So that the necessary special services to help children meet their needs according with the impairment owned. One is education that must getting by all early childhood with special needs.

Inclusive Educational System

Nasichin (2001) describes that Inclusive education is education that is included children with special needs to learn together with peers in regular schools, and finally they are part of the community of the school, so as to create an atmosphere of learning conducive.

Stainback and Stainback in Widyastono (2004) describes definition of inclusive education is a school accommodating all students in the same class. This school provides education programs eligible, challenging, but according to the abilities and needs of each student as well as the help and support that can be given by teachers so that children succeed. More than that, an inclusive school where every child can be accepted, to be part of that class, and help each other with teachers and peers, and other community members so that their individual needs fulfilled.

Staub and Peck explained that inclusive education is the placement of children with disabilities mild, moderate and severe in full in the regular classroom. This shows that the inclusion class is appropriate classes for children with special needs of any kind of disability and however gradation (Widyastono: 2004).

UNESCO in Girma Haunted (2011) describes definition of inclusion is the fundamental principle of the inclusive school is that all children should learn together, wherever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities.

Inclusive education is an educational approach that is innovative and strategic to expanding education access for all students, including children with special needs. In a broader context, inclusive education can also be interpreted as a one form of education reform that emphasizes anti-discrimination, the struggle for equal rights and opportunities, fairness, and expanding education access for all, improving the quality of education, a strategic effort to complete the compulsory education 9 years, and efforts to change public attitudes towards children with special needs.

The foundation of the implementation of inclusive education

Directorate PKK-LK (2011) describes the implementation of inclusive education has a philosophical foundation, juridical, pedagogical and empirical as below,

a. Philosophical foundation
The main philosophical foundation in implementation of inclusive education in Indonesia Pancasila which is five pillars at the same ideals that established the foundations of a more fundamental, called Unity in Diversity (Bhineka Tunggal Ika).
This philosophy as a form of recognition of human diversity consists of the vertical and horizontal diversity that a single mission as God's people on earth. Based on the philosophy of national unity, and the disability is only the one form of diversity as well as language, culture or religion. Within the individual disabilities must include certain advantages, otherwise in the individual normal children certainly there is also specific disability. Since all human beings no one is perfect.

b. Juridical foundation
International juridical foundation the implementation of inclusive education is the Salamanca declaration by the ministers of education worldwide. This declaration is actually reaffirmation on UN declaration about Human Rights in 1948 and continued declarations that led to the 1993 UN standard rules about same opportunity for individuals with disabilities get education as the integral of the education system. Salamanca declaration emphasizes that during possible all children should learn together regardless of any difficulties or differences they may have on them.

c. Pedagogical foundation
Section 3 of Indonesian Law No. 20 in 2003 explain that the objective of national education is the development of students' potentials to become a man of faith and fear of God, noble, healthy, knowledgeable, capable, creative, independent, and become citizens of a democratic
and responsibility. So, through education, children with special needs formed into citizens of a democratic and responsible individuals who are able to appreciate the differences and to participate in a community. This goal is impossible to achieve if at first they were isolated of their peers in special schools. However little they should be given the opportunity together with peers.

d. Empirical foundation
Research about inclusive has been widely practiced in western countries since the 1980s. Large-scale study was pioneered by the National Academy of Science (USA). The result showed that the classification and placement of children with special needs in schools, classrooms, or a special place to be ineffective and discriminatory. This study recommends that special education is only given limited segregated based on the proper identification, which truly can determine children with special needs are relatively heavy. However, some experts argued very difficult to do accurately identify children with special needs, because their characteristics are very heterogeneous.

**Characteristics of Inclusive Education**

One of the most important characteristics of the inclusive school is one community that is cohesive, accepting and responsive to the individual needs of each student. To that end, Sapon-Shevin offers five profiles of learning in an inclusive school.

a. Inclusive education means creating and maintaining a warm classroom community, accept diversity, and respect for diversity. Teachers have the responsibility of creating a classroom atmosphere that accommodates all children in full with emphasis the atmosphere and social behavior that respects differences concerning the ability, physical condition, socio-economic, ethnic, religious, etc.

b. Inclusive education means that multilevel curriculum implementation and multimodality. Teach classes that are made of heterogeneous require fundamental changes in the curriculum. Teachers in inclusive classes consistently will shift from a rigid learning, based on the textbook, or basal material to learning involve cooperative learning, thematic, critical thinking, problem solving, and assessment authentically.

c. Inclusive education means to prepare and encourage teachers to teach interactively. Changes in the curriculum is closely related to changes in teaching methods. Model of traditional classroom where a teacher is alone struggling to serviced the needs of all children in the class should be replaced with a model students work together, teach each other, and actively participate in their own education and the education of his friends. The relation between cooperative learning and inclusive classroom is now clear; all the children were in one class is not to compete, but to learn from each other.

d. Inclusive education means providing encouragement for teachers and class continuously and the removal of impairment relating to professional isolation. Although the teacher is always surrounded by other people, a job teaching profession can be isolated. The most important aspect of inclusive education includes teaching team, collaboration and consultation, and some way of measuring the skills, knowledge, and help individuals who served to educate a group of children. Teamwork between teachers and other professions are required, such as professionals, language and speech therapist, counselors, etc. Although to be able to cooperate with others either require training and encouragement, the desired cooperation turned out to be realized.

e. Inclusive education means involving parents meaningfully in the planning process. Inclusive education is very depend on the input of parents in their children’s education, for example, their involvement in the preparation of Individualized Educational Program (Sunardi, 2011: 7-8)

Inclusive classrooms to accommodate children who heterogeneous, be handled by expert of various professions as a team, so that each child's individual needs can be fulfilled. This of course demands a lot of changes to the conventional learning system as used in Indonesia right now.
Inclusive Educational System as educational services for the Early Childhood Special Needs

Early childhood with special needs that have been identified ease giving appropriate services for children, one of which is education services. Early childhood with special needs not only in Special School. Society Paradigm of children who attend special schools, causing parents finally feel inferior to send their children to special schools. So many cases of parents who have early children with special needs, prefer not to send their children. As a result, early childhood with special needs do not get a good education service.

According with the development of education for early children with special needs for more than a decade, schools with Inclusive Educational System or the alternative is present as an alternative so that children can attend regular schools. So parents who feel inferior to with their conditions, can send their children to the school inclusion.

Education for Early Childhood with Special Needs aims for all children aged 2-6 years have the opportunity to grow and develop optimally in accordance with its potential, and in accordance with the stages of development or age level. Besides early childhood education Inclusion is preparing to enroll in the School DasarInklusi. Inclusion of early childhood education conducted through formal paths in kindergarten inclusion and non-formal educational path in the form of playgroup, and Daycare.

During the period of the development of an Inclusive Educational System in Indonesia is still not a lot of schools that touches Early Childhood Education. As explained by Nuraeni (2014), Indonesia has been conducting inclusive education, starting from elementary education up to the top level high school). But Inclusive Educational System should be implemented also on the level of early childhood education.

This is related to the importance of stimulation in children from an early age. Smith (2006) explains that the influence of the most striking and can leave a long impression made at the right time, which is during the critical or sensitive period. If early child has been identified to have delayed development even has special needs, then stimulation from an early age will help children grow into better child development. This can be facilitated by the inclusion of early childhood education.

Implementation of inclusion as a form of early childhood education services for early childhood with special needs should consider a lot of things for children to be served well. Aspects to be considered include the curriculum, teaching, infrastructure and readiness of educators.

Curriculum for children with special needs in early childhood Inclusive

Based guidelines the implementation of inclusive education by Directorate PKK -LK (2011) described an alternate type / model of inclusive school curriculum is divided into two, which is:

a. Academic Curriculum

Academic curriculum early childhood with special needs are described as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Curriculum</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Standard Curriculum</td>
<td>Regular students and students with special needs has average intelligence</td>
</tr>
<tr>
<td>2</td>
<td>Accommodative Curriculum below the national standard</td>
<td>students with special needs who below average intelligence</td>
</tr>
<tr>
<td>3</td>
<td>Accommodative Curriculum above the national standard</td>
<td>Students with special needs has above average gifted an talented</td>
</tr>
</tbody>
</table>

Accomodative Curriculum a curriculum aligned with the talents and interests of children with special needs. implementation of curriculum using a model curriculum alignment with the form:
1) Escalation Model, is National standard Curriculum level increases and expanded the material qualification in accordance by students with gifted and talented
2) Duplication model, implementation the national standard curriculum to children with special needs is the same with their peers
3) Modification models is changed subtanasial of national standar curriculum for aligned with children’s ability
4) Substitution model is changed subtanasial of national standar curriculum with the other material because aligned with children’s ability
5) Omission model is removed part / whole national substantial of National Standard curriculum because it impossible given to children with special needs
b. Accomodative Curriculum Specificity
The curriculum is specifically related to interference as a form of service to children with special needs based on specific needs to optimize the potential that can be developed. Specificity the form of services such as:
1) Braille
2) Orientation Mobility
3) Speech Therapy
4) Physiotherapy
5) Modification behavior.

Model of Learning Implemetation
Classroom management and learning activities in schools inclusive by Directorate PKK -LK (2011) carried out as follows:

a. Classroom management
1) Full Regular Class
   The students with special needs learn together with their peers in the same class,
2) Regular Class with shadows Teacher
   The students with special needs learn together with their peers, but students with special needs get special service of special shadow Teachers
3) Special class in regular school
   Its implementation is separating students with special needs in a class from a regular students. However, in certain learning activities they are included in the regular classroom

b. Learning activity
   The learning activity is the classroom teacher and shadow teachers prepared learning for childrens with special needs. One of them is to prepare the Draft Educational Program for early children with special needs can follow their peers. It also should be prepared Individualized Educational Program (IEP) for early children with special needs who can not follow the classical learning design. Both the Draft Educational Program and IEP consists learning objectives, indicators of material reached, instructional methods, instructional media, the material to be taught, learning resources are used, evaluation.

Facilities and infrastructure
Facilities and infrastructure in inclusive schools the same as regular schools, but given the diversity of students infrastructure needs to include accessibility in order to help early children with special needs in mobility.

Teacher
Generally educators for early children with special needs is same with regular students. But there are additional academic staff who have educational backgrounds is special education who have competence in making lesson planning, implementation and evaluation of learning in children with special needs. All teachers need to coordinate with each other to provide appropriate services for children.

Benefits of Inclusive Educational System as education services for early childhood with special needs
The implementation of an Inclusive Educational System at the institution as a form of early childhood education services for early childhood with special needs have benefits for some parties. Benefits can be used as motivation in the implementation of the inclusion of early childhood in Indonesia. Nuraeni (2014) describes some of these benefits include:
a. Benefits for all students
   1) For children who do not have impairment will add insight that in their community there are some individuals who have multiple impairment
   2) After they know it can cause effects further understanding and acceptance early
   3) For the early children with special needs will not feel that they are different from other childrens
   4) Increase the confidence of children who have special needs.
b. Benefits for educators
   1) Teachers getting knowledge and new experiences that very useful for them
   2) Finding methods manipulative and creative in teaching
   3) Grow a commitment to ethics and responsibility of teaching
c. Benefits for parents
   1) The benefits for parents with children with special needs is able to increase their confidence because his children was not a "disease" that needed to be ignored but can participate with their community.
   2) Benefits for parents is in order to develop empathy, respect and acceptance of the children with special needs and their families.
d. Benefits for the community
   The community, generally will open his understanding that the children with special needs is not children who should be isolated and ignored, children with special needs can participated with their peers because they such the others also are humans who of course have the same rights. Openness public understanding can be built through their inclusive schools, especially when starting from early childhood level.

CONCLUSION
Early childhood with special needs is a group of children aged from birth to 6 years old who have impairments to the development aspect. Early childhood with special needs have characterized the impairments at visuals, hearing, cognitive, physical, social, emotional, behavioral and language. So that the necessary special services to help children fulfill their needs in accordance with impairment owned. One is education services that must fulfilled by all early childhood with special needs.

In addition to the Special School for Early childhood with special needs can attend regular schools with an Inclusive Educational System. School with inclusive educational system in early childhood education level is a school that brings together children with special needs to learn the same things in the same place with their peers. In the implementation of inclusive education at the early childhood level there are several things to consider, among other things: Curriculum, Education, Infrastructure, academic staff, etc.

REFERENCE


**Biography**

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CAPACITY BUILDING TOWARDS SUSTAINABLE COMPETITIVENESS OF EDUCATIONAL TECHNOLOGY INSTITUTE

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ABSTRACT
Problems of educational technology institution is: 1) Increased mastery of information technology. Mastery of technology continually strives to increase the competitiveness of educational institutions through internet technology. This work is done by building a website that can be called as a web portal as a spearhead in the realization of the ideals of educational technology institutions towards educational technology institution narcissistic and credible, supported by Search Engine Optimization (SEO) as a way to ease website institutional which is easily searchable via search engines like Google, as well as their webometric as a web-based application that is useful for ranking websites. Therefore, all the resources in the environment of the university should be empowered in accordance with the tri dharma college, either staff, leadership, faculty and students play a role in improving the website ranking on webometric ; 2) Increased bandwidth capacity on the share for faculty and students, the average bandwidth is shared up and down so that faculty and students less freely conduct activities to upload and download files of learning and academic papers. The needs for comprehensive management in order to adequately manage bandwidth are; 3) Capacity building and e-Library e-Journal as a source of learning of students and lecturers. e-Library and e-Journal needs to be handled by trained personnel professional in his field in order to provide the intended benefits., 4) Increasing the capability of lecturers to prepare instructional tools in the implementation of e-Learning learning with the concept of blended or another. There needs to arrange training for faculty teaching media to implement the learning e-Learning. Construction on the development of the capacity problems of the above needs their commitment and togetherness of all parties in managing and empowering resources to ensure the competitiveness of technology educational institution. Construction implemented sustainable development and integrated capacity to achieve the vision of technology educational institution. The success of capacity building must be coupled with monitoring and evaluation activities periodically, as a form of quality assurance to stakeholders of educational technology.

Keywords: capacity building, sustainability, competitiveness, educational technology.

INTRODUCTION
Brown (Rainer Rohdewohld, 2005: 11) defines "Capacity building is a process that increases the ability of persons, Organisations or system to meet its stated purposes and objectives". From such understanding can be interpreted that capacity development is a process that can improve the ability of a person, organization or system to achieve the objectives to be achieved.

Soeprapto (2006: 11) argues that; (1) Capacity-building is not a product, but a process, (2) Capacity building is a learning process multi-tiers include individuals, groups, organizations, and systems, (3) Developing the capacity to connect the idea of the attitudes, (4) Developing the capacity can be called as actionable learning, in which capacity building includes a number of interrelated learning process, the accumulation of a crash that adds to the prospects for individuals and organizations to constantly adapt to changes.

Gandara (2008: 9), that capacity building is a process to improve the individuals, groups, organizations, communities and societies to achieve the goals that have been applied. Based on an examination of the definitions of some experts about the development of capacity, it can be deduced that capacity building is a process of learning in enhancing the ability, skill, and expertise possessed by individuals, groups or organizations and systems to strengthen the ability
of self, groups and organizations that able to defend themselves or the profession amid the changes that occur continuously.

Keban (2000: 7) Capacity Building is a set of strategies aimed at improving the efficiency, effectiveness, and responsiveness of the performance. Morrison (2001: 23) says that "Learning is a process, the which flows from the need to make sense out of experience, reduce the unknown and uncertain dimensions of life and build the competencies required to adapt to change". The purpose of Capacity Building is a learning organization, starting from the flow of the need to improve performance in all aspects of academic and non-academic, reduce ignorance and uncertainty in developing the skills needed to adapt to face changes and competition.

The purpose of Capacity Building is divided into two parts; (1) is generally identical to the embodiment of the sustainability of the system; (2) specifically intended to achieve better performance from the aspects of: (a) Efficiency in terms of time (time) and resources (resources) needed to achieve an outcome, (b) Effectiveness in the form of decorum efforts for results desired, (c) the responsiveness of how to synchronize between the needs and capabilities for that purpose, (d) learning, as indicated in the performance of individuals, groups, organizations and systems.

Methods in Capacity Building.

Development of Capacity Building has its own activity that allows the development of capacity on a system, organization, or individual, where such activities consist of several phases, as for the phase according to Gandara (2008: 18) are:

(1) The preparation phase. In this phase there are five working steps, namely: (a). Identification of needs for capacity building, the work step has the main activity is to identify the reasons and the real need to develop capacity. (b). Set goals. This work step has the main activity is to consult with key stakeholders to identify the main issues of capacity building (c). Giving responsibility. This work step has the major activities that define the person in charge of capacity building activities, for example, formed a technical team or work unit (d). Designing a capacity building process. This work step has the main activity is to determine the appropriate mapping methodology problems that arise and makes scheduling activities on process mapping and subsequent stages of the formulation of an action plan capacity building. (e). Allocation of resources. Its main activity is to identify the financing of the process of developing the capacity and allocate resources in formulating the resource requirements within the budget required and may be approved by the authorities.

(2) Analysis Phase. In this phase there are five working steps, namely: (a). Identifying the problems in this regard as its main activity conduct an examination of issues for further investigation. (B). Analysis of the process in this case as its main activity connects to the mapping capacity problems with the performance of system processes, organizations and individuals. (C). Analysis of the organization in this regard as its main activity the organization chose to investigate deeper (mapping organizational). (D). GAP charted in the capacity in this respect is the main activity in the form of mapping the gap between the ideal capacity with reality. (E). Summing needs urgent capacity building in this regard is the main activity in the form of concluding the findings and gather proposals for capacity development action plan.

(3) The Planning Phase. In this phase there are three working steps, namely: (1). Annual planning, the main activity is to formulate the concept of capacity building action plan. (2). Make a medium-term plan, the main activities include meetings consultative. (3). Develop priorities, the main activities in the form of deciding priorities of capacity building and the stages of implementation.

(4) The Implementation Phase. In this phase there are five working steps are: (1). Programming, as its main activity allocates its resources at this time. (2). Planning capacity-building projects, as its main activity formulate capacity development policy implementation. (3). Selection of service provider capacity building, as its main activity to identify related services and products beyond the implementation of capacity development needs to be dikerjankan. (4). Implementation of the project, the main activities such as the implementation of the annual program in accordance capacity building of existing resources and schedules are
available. (5). monitoring process, the main activities in the form of monitoring the activities of capacity building.

(5) **Evaluation Phase.** In this phase there are two working steps, namely: (1). Evaluation of the impact, as its main activity to evaluate the achievement of capacity-building, such as a performance enhancement. (2). Re planning a capacity building action plan, the main activity is to analyze the findings of the monitoring and evaluation of the impact in the context of re-development capacity planning needs.

Embodiments of the capacity building activities in college actualized in high ideals and wanted to realize the World Class University (WCU). One criterion is the amount of recognition in the international sphere, be it education, research, the quality of human resources, infrastructure, teaching and learning, as well as the supply side of information technology and the popularity of its web. Universities have a competitive edge if they can build value (value), confidence (trust) and partnerships (networking). The ability of universities to demonstrate a competitive advantage and offer value, trust and partnership based on performance compared to other universities, such as the rating of "AKU" (Anugerah Kampus Unggulan) and facilitated by KOPERTIS Region VII East Java. Universities and colleges can be positioned competitiveness when a college has met certain indicators of achievement that starts from the input, process and output to practice the values of Tri Dharma. Citra college became essential to increase its visibility in the public eye, both nationally and internationally that impacts the college rankings. Sumihardjo (2008), suggests that the "competitiveness include: (1) the ability to strengthen its market position, (2) the ability to connect with the environment, (3) the ability to improve performance without stopping, and (4) the ability to enforce an advantageous position"

**Utilizing the Information Technology (IT) in building the capacity of the website portal.**

Through capacity building we can use information technology to meningkatkan capacity in the university website portal. This website is a media campaign and the competitiveness of the update on the activities of the university. Building a website portal as an "anchor" to provide the entire set of information of universities and academic services that facilitate the activities of both the campus community and the community outside the campus. The question is, bagaimena competitiveness of our institutions? Released ranking period July 2016 to show an interesting thing where there are fluctuations in the rankings Universities in Indonesia. Many universities which experienced an increase but not least down even thrown far enough. Info detail can be seen on the link, [http://www.webometrics.info/en/Asia/Indonesia%20](http://www.webometrics.info/en/Asia/Indonesia%20).

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Webometrics Ranking is better regarded not as an end but as a natural process. Many ways and underhanded tricks (bad practice) to improve the ranking quickly, but it is considered to be in violation of the purpose webometrics. Besides the potential for sanctions ranking drastic decline also violate academic values and ethics. Since the period of January 2016, webometric has released new rules and algorithms with respect to bad practice.
Ranking 99999 given to institutions who caught multiply the number of PDF parameters. Openness that number to more than one third of the webpage (presence). This amount is considered as irregularities and not natural. Some rogue practices found in the field is to break an ebook into one pdf page one, save paper which does not belong to the institution (pirated), or use the massive engine pdf creator.

Moreover, some fraudulent practices at issue is the existence of institutions that bought back links by relying on big money from link farms to pursue value IMPACT in webometrics. This practice is said to be a criminal if it involves public money. There also are bought back link system that promotes piracy, illegal drugs, pornography, terrorism or pederasty that in some countries this practice is followed by security forces.

In addition to the above reasons, webometric also reveal that there are institutions that utilize off-campus educational networks (e.g. schools, boarding schools, Mobil, which is still under the same foundation) to use a domain campus. Webometric suggested that such acts must be stopped (although there has been no statement will be imposed a penalty as well) because it makes the game so unfair.

Utilizing IT in building the capacity of educational technology.

Technology education is an applied discipline that developed for their needs in the field, namely the need to study (learn more effectively, more efficiently, more, wider, faster, and meaningful). However, with the development of information and communication technology that is unbelievably fast and offers a number of possibilities previously unimaginable, has turned our way of thinking "on how to take advantage of these technologies to address the problem of learning". It's time the information technology used as a strategy to increase competitiveness in the learning process in educational technology institutions, and colleges up to national and international scale.

Improving the quality of learning can be done using technology approach to education, that is by seeking and identifying problems faced in learning then be resolved through the application of educational technology. Efforts to solve education problems, especially the problem of quality of learning, can be done through the use of various sources of learning and the use of media that serves as a tool and increase levels of learning outcomes mahamahasiswa.

Some applications of educational technology that can be used as alternatives to choose from are: (1) The utilization of learning resources: learning the art can use a source of learning, not just professors as a source of primary learning but also can take advantage of tools (hardware), material form of learning materials, techniques and also setting the form of the surrounding natural environment that can be further explored for learning the art; (2) The use of multimedia presentations: the use of multimedia in teaching activities are appropriately optimized for this is based on reason meaningfulness of learning outcomes and the proliferation of multimedia devices such as power point software, for example, director and hardware such as multimedia projector / LCD projector; (3) The use of a medium of learning: based on research using the media, in general, stating that the use of media is effective to increase hasill learn, activate and increase motivation belajar.pembelajaran mahamahasiswa art can use the selection of media such as video, film, media projector, and printed material; (4) The use of interactive learning computer-based learning can not only be done conventionally (big group) but can also be done on an individual basis (individual lerning) who use computers as a learning tool, with this program mahamahasiswa actively can interactively learn completely against the learning materials; (5) Development of a standard operational procedure of (sop) for practical learning: it is necessary to improve learning for improvement of skills through practical aspect, knowing the procedure before the expected risk of inefficiencies lab learning will be resolved; (6) The use of the Internet as a learning resource: the Internet can be used as a source to explore the science of knowledge, including knowledge of the art and can also be used as a suggestion for the publication of information and art products.

The development of science and technology, bringing a change also in learning material or learning materials. Before the development of computer technology basic learning materials used in the world of education is all that is printed material, like the book, modules, paper, magazines, newspapers, tabloids, journals, hand out leaflets, booklets and so forth are all using
printed materials. The change in technology, especially information technology, bringing a new paradigm in learning material and learning method.

IT products today has provided an alternative form of learning materials that can be used and accessed by learners who are not in paper form, but the form of CDs, DVDs, flash, etc. The core of the material is in the form of program/software that can be utilized if just retrieve the data, read, download and even to interact with the program mahamahasiswa and teachers/lecturers by utilizing the computer as the primary device. In the terminology of the concept of learning technology known as computer-based learning or CBI (computer based instruction).

CBI characteristics: (1) The representation of the content. Interactive learning does not just move the text in a book, or modules into interactive learning, but the material selected is truly representative to be made interactive learning. For example a special material that needs to be contained elements of animation, video, simulations, demonstrations and games, mahamahasiswa not only read texts but also see an animation of a process resembling the actual process, thereby facilitating an understanding with the relatively lower cost than directly on the real object; (2) Visualization with video two-dimensional, three-dimensional and animated. The material is packaged in multimedia contained therein text, animation, sound and video on demand material; (3) Using a full color / charming and graphic with a high resolution. The appearance of the template is created with digital engineering technology with high resolution but support for each spech computer system. Visually attractive by increasing the image and the object according to the demands of matter, will increase interest mahamahasiswa against teaching materials, not saturated, even pleasant.

Utilizing IT in preparing the hybrid library.

Library development in recent decades has been much influenced by the development of Information Technology (IT). The application of IT in a particular library or library services is inseparable also spoke about the transformation of a traditional library to digital libraries, electronic library, or virtual library. But of the many evolving concept is actually currently evolving concept quite fitting and maybe in the next few decades is relevant is what is called the Hybrid Library.

Hybrid according Pinfield Library (1998: 1), namely, "The hybrid library is on the continuum between the conventional and digital library, where electronic and paper-based information sources are used alongside each other". From that sense it can be stated that the reference to the library "hybrid" is the fusion between the traditional library and digital library / electronics, where the sources of both printed and electronic information used in conjunction with one another. Hybrid library has a permanent collection of printed and on par with electronic or digital collections.

Hybrid library intends to maintain a collection of printed and not replace it with a collection of electronic or digital. In addition to the Perpuspedia (2011: 1) it is known that hybrid Library expand the concept and scope of information services, so the addition of electronic and digital collection and use of computer technology is not separated from the service-based printed collection". Services printed collection expanded and managed in a more diverse through the aid of a computer. In other words, hybrid library is not just a library of printed and electronic, but rather a combination of both so completely that printed collection is now used in a different way than before there were computers. Library universities at this time indirectly has developed a concept hybrid library. According Surachman (2009: 1), "the concept of hybrid library is to manage a collection of printed and digital collections".

Hybrid library, in addition to utilizing printed collection users can also take advantage of a collection that can be accessed electronically or virtual. There is a synergy between the printed collection of electronic or virtual, meaning that the traditional concept and electronic position complement each other, not separated and integrated. Build a library of hybrid or digital, then digitizing indispensable therefore, the library needs to open a special unit for scanning print collection that already exist such as: paper / thesis / dissertation mahamahasiswa, research professor, paper presentations academicians, proceedings, journals and local more. One common way in building digital collections is to change the printed library materials owned into digital form.
According Pendit (2007: 241), "Digitization is a process that converts analog signals to digital form of the signal. In the library world, the digitization process is a process that converts the printed document into a digital document ". The purpose of digitizing is to gain efficiency and optimization in many ways, among others efficiency and optimization of the storage area, the security of the various forms of disasters, to improve the resolution, the picture and sound are more stable. In addition, according Deegen (2002), quoted by Rasiman (2011: 2), there are several advantages of digitizing among other things: a) fast access to high-demand items and frequently used. b) Easy access to the individual components of the item (eg articles in journals). c) fast access to remote material. d) Ability to obtain materials not published anymore (out of print). e) Potential to display material in a format that can not be achieved (for example: the size is too large or map). f) Allow the spread of the collection and are shared. g) Potential to present breakable objects / original expensive to substitute in a format that can be accessed. h) Improve search capabilities, including full text. i) The integration of different media (images, sound, video, etc.). j) Reduce the burden or cost of delivery.

From the foregoing it can be seen that the purpose of digitization is to expand the use and ease of access. Utilization and access to electronic information resources is much wider than the printed material. Electronic information resources can be used by many users (multi-user) at the same time and can be used with remote access (remote access) without having to come to the library.

**Utilizing IT in the process of setting up e-learning.**

Change does not always make things better, but to be better, something has to change (>). According to Resnick (2002) there are three important things that have to be rethought related to the modernization of education: (1) how we learn (how people learn); (2) what we learned (what people learn); and (3) when and where we learn (where and when people learn). By looking at the answer to these three questions, as well as the potential Informasain Technology (IT), then we can take advantage of IT in setting up the learning process, related methods, strategies and instructional media.

Way interaction between teachers with mahamahasiswa determine the learning model. Pannen (2005), is currently learning a paradigm shift associated with the dependence on the teacher and the teacher's role in the learning process. The learning process should not be 100% dependent on the teacher again (instructor dependent) but more centrally to students (student-centered learning or instructor independent). Teachers also no longer be used as a reference all knowledge but rather as a facilitator or consultant (Resnick, 2002).

IT intervention that can be done in this model is very clear. The presence of e-learning at all levels of variation have facilitated this change. In general, e-learning can be defined as learning delivered through all electronic media including the internet, intranets, extranets, satellite, audio / video tape, interactive TV, and CD rom (Govindasamy, 2002).

According to Kirkpatrick (2001), e-learning has encouraged democratization of teaching and learning by providing greater control in learning to students. This is in accordance with the principle of national education as enshrined in article 4 of Law No. 20 of 2003 on the national education system which states that "education was held in a democratic and fair and not discriminatory to uphold human rights, religious values, cultural values , and the diversity of the nation".

In general, e-learning intervention in the learning process can be grouped into two: the complementary and substitution. The first assumes that the way of learning with face-to-face meetings are still running but coupled with IT-assisted interaction model, while the latter is mainly IT-assisted learning process is done.

Currently, the regulations issued by the government has also facilitated the use of e-learning as a substitute for conventional learning process. National education ministerial decree no. 107 / U / 2001 with a clear opening corridors for conducting distance education in which e-learning can play a role entry.

The next question is what we learned. Questions such as whether the curriculum in accordance with the needs of students and whether the curriculum has been designed to prepare
students to live and work in the future need to once again leveled. The rapid development of IT should be considered in answering these questions.

According to Resnick (2002), in addition to TI will greatly color the future, TI also changed not only against what should have been learned by the students, but also what can be learned. Very probably a lot of things that should or could be studied student but can not be included in the curriculum because "space" is limited or high complexity in teaching it. Related to this, previous learning paradigm assumes that resources are limited to learning materials in the classroom and books should be changed.

The presence of IT, especially the Internet, have provided some instructional resources are not unlimited. For example, a survey conducted by the author of high school students in Yogyarta, Bantul, and Gunungkidul found that more than 10% of students use computers for graphic design is not taught in school. The simple question that arises is how they learn? The answer is straightforward: access to computers and the internet have allowed it to happen. Discussions like these can be extended to not restrict learning only on formal institutions. It is time learning society campaigned as one manifestation of consciousness spirit of lifelong learning (long-life learning).

Information technology, particularly the Internet, in this case provides an opportunity for it. When and where learning is done is the third question that needs to be rethought his answer. Should it be in the classroom in a certain time or unlimited space and time? Face-to-face learning model that many limit the time and place of learning.

As a complement (or substitution), e-learning technology exists to give students the freedom to choose the place, time and rhythm of learning (Kirkpatrick, 2004). The interaction is facilitated by IT can occur synchronously (at the same time) or asynchronous (at different times). E-learning can be facilitated by online and offline, but aided by IT. Production cd-rom with content learning materials included in it. Now, we can get a lot of cd-rom for learning on the market; began to toddlers. Even some cd-rom has facilitated student learning according to curriculum was walking with attractive packaging. In this case, IT can deliver digital excitement in the learning process.

To facilitate e-learning with the help of an internet connection, in recent years, has developed many applications designed to support the learning process. These applications are often called a learning management system (LMS) that integrates many of the functions that support the learning process as facilitating various forms of instructional materials (text, audio, video), e-mail, chat, online discussions, forums, quizzes, and assignments. Some examples lms are WebCT (www.webct.com), blackboard (www.blackboard.com), macromedia breeze (www.macromedia.com/software/breeze/) and Fronter (www.fronter.no).

LMS has been widely adopted by many educational institutions in the world. For instance, WebCT has been used more than 2200 universities worldwide (pituch and Lee, 2004). Blackboard has also been widely used by education level of high school (www.blackboard.com). Many of the criticisms addressed to use LMS deemed not consider the pedagogical aspect.

Therefore, according to the institute for higher education policy, the American (in Govindasamy, 2002) there are seven parameters that need to be considered in applying e-learning considering pedagogical principles, namely: (1) institutional support; (2) course development; (3) teaching and learning; (4) The course structure; (5) The student support; (6) faculty support; and (7) evaluation and assessment. Karenanya, in another language, Soekartawi (2003) identifies that the successful implementation of e-learning is dependent upon an assessment of whether: (a) e-learning has made it a necessity; (B) availability of supporting infrastructure such as telephone and electricity (c). The availability of internet network facilities and an internet connection; (D) learning software (learning management system); (E) the ability and skills of people to operate; and (f) policies that support the implementation of e-learning program.

Objective use of IT in education by Alavi and gallupe (2003) is; (1) improve competitive positioning; (2) improve the brand image; (3) improve the quality of learning and teaching; (4) increasing student satisfaction; (5) increase revenues; (6) expanding base of students; (7) improve service quality; (8) reduce operating costs; and (9) to develop new products and
services. Therefore, it is not surprising that today many universities in Indonesia which berlomba-lomba invest in IT to win the competition is getting tighter.

Problems resulting from the use of Information Technology (IT).

As another technology that has come to earth, TI also comes with dialectics. In addition to bringing many potential benefits, IT presence can also bring problems. Especially the Internet, dissemination of information which is not unmanageable have open access to information that is not useful and morally corrupt. Therefore, preparation of student ethics will also be necessary. Terinternalinasi ethics in student life is 4 strongest firewall to block attacks useless information. Another problem that arises related to the asymmetry of access; unequal access. This will make the digital divide (digital divide) is widening between students or schools with the support of strong resources with students or schools with limited resources (see also lie, 2004).

Trainings to improve literacy (literacy) TI also another entrance that should be considered to improve the understanding of the potential of IT, which in turn is expected to increase awareness (awareness). Without awareness, IT utilization is not optimal, and more worrying is difficult for (sustainable).

OBJECTIVES OF THE STUDY

By attention to the factors that influence levels of the Capacity Building and Capacity Building, then the purpose of this study is to implement Capacity Building for sustainable; (1) Utilizing information technology (IT) in building a website portal; (2) Utilizing information technology in education technology; (3) Utilizing information technology in preparing the library Hybride; (4) Utilizing information technology in the process of setting up e-learning; (5) understand the problems resulting from the use of IT

METHODOLOGY

This study is a literature study, all descriptions in this study described the results of the study of literature. All data is secondary data obtained from the documentation of certain sources are trusted. Analysis of the data described by using causal analysis.

RESULTS

Data from Capacity building is very limited, but it will use information technology to improve; (1) capacity in the university website portal; (2) the capacity of educational technology, (3) the capacity of the hybrid library, and (4) the process of e-learning, we must start now in order of need.

As well as the role of quality assurance is also important. To ensure a sustainable change to the four aspects of capacity in the above, a monitoring and evaluation (M & E) is carried out by a team of quality assurance on the implementation of capacity building by using instruments that have been designed previously. The success of the monitoring and evaluation of capacity building guarantee the quality of university performance, particularly educational technology.

Please note that, starting in July 2012, the assessment criteria used by Webometrics changed from before. During this Webometrics using criteria; size, visibility, rich text, and scholarly, now Webometrics using Presence (20%), Impact (50%), Openness (15%), and Excellence (15%) as the assessment criteria. Presence (20%) is the number of web pages hosted in the main webdomain (including all subdomains and directories) of the university that are indexed by the search engine Google. This assessment calculates any web page, including all formats recognized individually by Google, including static and dynamic pages and besides rich files. Impact (50%) is the content quality is evaluated through a "virtual referendum" by counting all the external in-links received by webdomain University of third parties.

These links acknowledge institutional prestige, academic performance, the value of information, and the usability of services such as web pages that are introduced in accordance with the criteria of the millions of web editors from around the world. Link visibility data were
collected from two information providers, namely Majestic SEO and ahrefs. Both use their own crawler, resulting in different databases that are used together to complement each other or fix the error. The indicator is the product of the number of backlinks and the number of domains derived from these backlinks, so it is not only important but also the diversity of link popularity link. Openness (15%) represent the number of document files Adobe Acrobat (.pdf), Adobe PostScript (.ps, .eps), Microsoft Word (.doc, .docx) and Microsoft Powerpoint (.ppt, .pptx) is online / open in website under the domain of the university that was caught by the search engines (Google Scholar). Excellence (15%) represent the number of scientific articles concerned college publications indexed in Scimago Institution Ranking.

CONCLUSION
Capacity building sustainable, by utilizing information technology to improve; (1) capacity in the university website portal; (2) the capacity of educational technology, (3) the capacity of the hybrid library, and (4) the process of e-learning, should be increased through capacity building based on the order requirements. To ensure a sustainable change to the four aspects of capacity in the above, a monitoring and evaluation (M & E) is carried out by a team of quality assurance on the implementation of capacity building by using instruments that have been designed previously.

Acknowledgements

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**THE DEVELOPMENT OF POHON KATA LEARNING MEDIA FOR BRIGHT KIDDIE KINDERGARTEN OF PONDOK CHANDRA INDAH, WARU, SIDOARJO REGENCY**

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**ABSTRACT**

The changing of curriculum and learning target in kindergartens requires students to learn reading, writing and counting skills. The facts are that they have a lot of difficulties to adapt, especially for improving their language skills that consists of knowing letter, knowing sounds, reading and writing skills. Depending on those problems, the researcher had an interest to make media that are able to help teachers and student in the learning process. That is called “pohon kata” (tree of words). This research was a Research and Development method that had some purposes: to know the development of pohon kata learning media as an alternative media for helping language skills development for A-level kindergarten, and to know the improvement of student language skills. The learning media development consisted of a book for guiding teachers, how to make the media, what they need in process, lesson plan, materials, and the evaluation process. The result of assessment given by experts on pohon kata product design was very decent, so it means that Pohon Kata Learning Media is suitable for A-level kindergarten learning process in Bright Kiddie School of Pondok Chandra Indah, Waru, Sidoarjo District. The result of assessment for the students showed an increase in value and linguistic ability, especially for making of a letter shape, making words, and writing letters. Suggestions put forward in English language teaching materials development through pohon kata learning media are: (1) Kindergarten teachers can use pohon kata learning media for language learning process in Kindergarten of A level in Bright Kiddie School of Pondok Chandra Indah, Waru, Sidoarjo District (2) The learning media can be used for individual or grouping exercise, so, we can use it optimally for increasing language ability of A-level kindergarten students. (3) The media can continuously improve for Bright Kiddie School or other kindergarten schools for alternative media to develop kindergarten students’ language abilities.

**Keywords:** Dick and Carrey, learning media, Pohon Kata

**INTRODUCTION**

*Background of The object*

Education is one of things, that society needs. In indonesia, education is divide into three points. Formal, informal and non formal education. Formal education is a systematic activity that has a degree, including the academic activities, profesional training, specialist program, and it should be done continously.

Informal Education is an education that is happened for a long time until died. From this type, we know the life value, a good behaviour, the rule in our society. Experiencing good and bad things. We could get those education everywhere, everytime and from everyone, inside the families, in public place, in our environment, or inside the society. The last, Non Formal Education is a systematic program that is doing outside the school for giving some knowledge or life skills to special students for reaching their learning objectives.

According to government regulation, PAUD is consist of two different types education. Formal and non formal education that has many standarization. Indonesia Government make curriculum to reach the standarts. It may affect the learning process, students inteligence and students skill development, that include cognitive, afective and psychomotoric skills.

Nowadays, there is a change over kindergaten curriculum. There are some differences about how long learning process happened, and of course the standarization. Not only for non academic, but also academic one, include math, reading-writing skills, and another knowledges.
Those things make a revolution in curriculum. Albert Ford (in Bertinoring, 2012 : 36) said that under three years old is the best moment to teach and improve kids language skills. The problem is how to teach them with a fun learning. We know that children world is about playing, so that, we as a kindergarten teacher should know how to give knowledge while playing. Reading and writing skills are difficult for kindergarten students. They have some difficulties to remember the letters. The fact is they remember numbers better than letters. So that, teacher couldn’t teach them about words and sentences.

For the first step, they should know the letter, and then sounds of letter then followed by reading experience. This reading experience is not asking them to read, but they only listening some stories that was red by teacher. Knowing the letter is not easy. Usually, they know the numbers first than the letters. Probably, it’s because of the amounts of the letters is a lot more than the numbers. We know, there are twenty six letters, but we only have ten numbers. That’s the comparison.

According to the reasons above, the researcher was doing the researchment and found out some problems. The Problems are ; 1) How to developed “Pohon Kata” Learning MEdia for developing students language skills, 2) The difference of students result, before and after using “Pohon Kata” Learning media.

a. Pohon Kata Learning Media
Pohon is tree (in english), and Kata is word (in english), so pohon kata is able to called “tree of words”. Pohon Kata is a learning media that was made for Kindergarten A class. Pohon Kata is used for developing students language skills, such as knowing the letters, knowing sound of letters, reading, and writing. Pohon kata is made by recycling rubbish, such as old branches, a can, a newspaper and so on. It is depend on teachers. The branches will fill with letter cards, that looked like fruits, it can be an apple, an orange, strawberry, and another fruits that students know. Pohon Kata is played in a group with three or four students. Teacher give a word to them, such as, root, branch, fruit, leaf, and so on, according to theme or sub-theme. They should find the letters card on the branches, take it and paste on the papers. After that, teacher should explain about the letters. What letters that they took, and the sound of letters. It’s the first step for learning the letters on the easy way. Teachers should do it, continously, about three until four times. After that, give them a final test.

Pohon Kata learning media is following Dick and Carrey model. There are some steps according to that theory :
1) Needs identitification
2) Figure out instructional goals
3) Students Behaviour analyze
4) Instructional Analysis
5) Performance Objectives
6) Criterion-Referenced Test Items
7) Instructional Strategy
8) Instructional Materials
9) Sumatif Evaluation

b. Method
The method is being very important, because the method will help to know the result of the researchment and accountability. This researchment used Research and Development method that include, (1) Development model, (2) Developing procedure, (3) Product Trials. According to Sugiyono (2015), the result of Research and Development is able to use for making an effective and efficient work.

Beside that, this researchment also used Dick and Carrey model to develop the learning media. It started from needs identification, and Sumatif evaluation on the last step. There are another steps to follow after the media had finished. The first is validation process. Validation Process is used to know the properness of learning media. After that, Product Trial process, using learning media in the real learning process, on the class.
The objects are fifteen students of Bright Kiddie Kindergarten A class Pondok Chandra Indah, Waru, Sidoarjo District, East Java. Of course, with different characteristics for each of them. Data Analyzing used two steps, pretest-posttest design and t-test.

Here is the structure of Pretest - Postest Design:

\[
\begin{align*}
X & = \text{Treatment} \\
O_1 & = \text{Pre-test result} \\
O_2 & = \text{Post-test result}
\end{align*}
\]

This is the structure for t-test according to Sugiyono (2015 : 244)

\[
t = \frac{x_1 - x_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r \left( \frac{s_1}{\sqrt{n_1}} \right) \left( \frac{s_2}{\sqrt{n_2}} \right)}}
\]

1. Tables and Figures

Using Pohon Kata learning Media is a step before data analyzing process. Pretest result is taken before students get treatment, and post test result is taken after students get treatment. Here is the comparison of the pretest and postest result.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Average</th>
<th>Pre-test</th>
<th>Postest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>2.13</td>
<td>3.33</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1.93</td>
<td>3.33</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>2.07</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>1.67</td>
<td>3.67</td>
</tr>
</tbody>
</table>

There are a big gap between those two, Postest result is higher than pretest result. It means, pohon kata is able to help students to solve their problems, to increase their understanding. Pohon Kata may suitable to develop students language skills, especially, to know the letters well.

Figure 1 : Comparison of Student result average (pretest-posttest)

2. Equations

In this case, analysing data used t-test. T-test is able to be written as follow:
\[ t = \frac{x_1 - x_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}} - 2r \left( \frac{s_1}{\sqrt{n_1}} \right) \left( \frac{s_2}{\sqrt{n_2}} \right)} \]  

(1)

With:
- \( X_1 \) = Average before treatment
- \( X_2 \) = Average after treatment
- \( S_1 \) = Standard Deviation before treatment
- \( S_2 \) = Standard Deviation after treatment
- \( S_1^2 \) = Variants after treatment
- \( S_2^2 \) = Variants before treatment
- \( r \) = Correlation between two groups of sample

CONCLUSION

After doing the analysis process, Researcher get some conclusions about this researchment. The first conclusion mentions about how suitable the media for kindergarten A class students. The properness is about 80%. The properness is able to looked from the students result. Before and after using “Pohon Kata” learning media. There is a big gap between those two. After result is higher than before result. So that, we can say, “Pohon Kata” learning media is suitable for kindergarten A class students. This learning media is able to use in learning process, especially for improving students language skills, such as, knowing the letters, knowing the sound of letters, reading words, sentence, and writing. The researcher hope, this learning media will apply not only in Bright Kiddie school but also in another kindergarten.

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ABSTRACT

The purpose of this study was to develop a module of subjects learning development as an attempt at improving the quality of teaching in the Elementary Teacher Education Program at University of PGRI Adi Buana Surabaya. In this instance it described the results of the students’ and lecturers’ responses on the effectiveness and quality of the product, i.e. the module developed for the school subject learning. The study was a research and development with 4-D model (Define, Design, Develop, and Disseminate). In the first year the development stage was implemented. It resulted in the module prototype. It was then validated by the experts. The results showed that the prototype belonged to very good category with a value of 4.85. It was confirmed by 73 % of the students who responded ‘strongly agree’ in the second year the application was done to the limited sample, i.e. the students of the Elementary School Teacher Education Department of University of PGRI Adi Buana Surabaya. It is effective for use as a learning resource for the learning of elementary school subjects and with excellent quality, i.e. with a mean score of 4.3.

Keywords: effectiveness, quality, module development, elementary school subjects learning

INTRODUCTION

Elementary School Teacher Education is one part of the Institute of Teacher Training that has a fairly large responsibility in preparing and training prospective elementary school teachers to be professional, ready and responsive to confront any possible changes. One form of teacher professionalism is the ability and skills in designing and implementing Therefore teachers are required to have adequate knowledge and skills to be able to develop learning tools properly.

The Development of Elementary Learning course in the Elementary Teacher Education Program at University of PGRI Adi Buana Surabaya is in fact is the outcome of several courses that underlie the competence of prospective elementary school teachers, including courses learning strategies, development of instructional media, curriculum development, lesson planning and evaluation that have been taken from the second to fourth semester. Accordingly, there is vulnerability to forget about concepts related to the prerequisite courses delivered in separate semesters. This enables the difficulties and becomes a limiting factor in uniting the various key features of concepts included in the competence in developing lessons in elementary schools.

To overcome these difficulties, scenario-based learning was applied. Fanani (2013) cites that the development of the scenario-based learning increased the attractiveness of learning and showed the depth of the material, as well as described the support for material clarity. However, during this time of learning, the students lacked of connecting among the existing materials with their preexisting knowledge and the information they find. The students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information, or they may learn them for purposes of
a test but revert to their preconceptions outside the classroom. Therefore the learning scenarios were good, but they did not support the learning materials. There was then a need to design materials systematically resulted in an effective and efficient achievement of optimal learning results. Results of research conducted by Azmy (2012) indicate that the development of writing skills course module was able to improve the achievement of students of Elementary Teacher Education Program at University of PGRI Adi Buana Surabaya. Thus the development of a learning module for the Development of Elementary Learning course was imperative.

Learning module is planned learning materials programatically and systematically to assist learners in achieving goals and study independently or with the teacher (Suryosubroto, 1983). Learning module allows learners to learn independently, because the modules are designed in detail to include objectives, teaching materials, exercises, assessment tools and an answer key to measure the success (Wijaya, 1992). With the module as a complementary teaching materials course, it then allows processes and student learning outcomes could be better.

With reference to all above, the research problems are formulated as follows: (1) How is the process of module development of the Development of Elementary Learning course as improving the quality of teaching in Elementary Teacher Education Program at University of PGRI Adi Buana Surabaya? (2) How is the effectiveness of the course modules in terms of the responses of students and teacher colleagues? (3) How is the quality of the module in terms of the responses of students and teacher colleagues?

The benefits of this research are of importance because it allows the impact on the ease and quality improvement in the learning process of the Development of Elementary Learning course. To develop competence in an area of inquiry, the students must have a deep foundation of factual knowledge, understand facts and ideas in the context of a conceptual framework, and organize knowledge in ways that facilitate retrieval and application. That is expected to ultimately improve the students’ academic achievement.

**METHOD**

This research addressed a development that aimed to develop a module of the Development of Elementary Learning course. Therefore the research methods used in this study was the Research and Development (R & D) with model 4-D (Define, Design, Develop, and Disseminate) as suggested by Thiagarajan in Ibrahim (2001). The research steps are illustrated in Figure 1.
The location of this research is the Elementary Teacher Education Program at University of PGRI Adi Buana Surabaya. The research data were in the form of responses/feedbacks from validators, lecturers, and students in relation to the effectiveness and quality of the course module development. The techniques used to gather the data were questionnaires on validation of content and instruments, the effectiveness of the module, as well as the quality of the modules administered to the lecturers of the Development of Elementary Learning and students who had taken the course.

The data were analyzed descriptively by using the average number of respondents per questionnaire item measuring every aspect of the module. The resulted responses generally describe the quality of the modules and each module section in question. The aspects of quality criteria used are as following:

The average response formula for each aspect is $\frac{\Sigma x}{N}$

where $x$ is the value of scores of respondents of each item and $N$ is the number of respondents.

The criteria for the quality of each aspect or item of the questionnaire used the size of the interval as follows:

- 4.2 to 5.0: Very good
- 3.5 to 4.1: Good
- 2.7 to 3.4: Fair
- 1.9 to 2.6: Poor
- 1.0 to 1.8: Very poor

RESULT

The process of the module development in this study was conducted in accordance with the characteristics of the manufacture of modules and module materials, namely the development of elementary learning tools, as well as the design of the research method used in this study. The development of the modules considered the principles of development including the goal-oriented, self-instruction, continuous progress, self-contained, cross referencing, and self-evaluation (Pusbangprodik Kemendikbud).
The step-by-step development of the module include the planning module by reviewing the Development of Elementary Learning course learning development, designing the systematic module and its content), writing the module, the module validation, the small group trial by the teacher colleagues who were teaching the course), the large group trial by the students who were and had been through the course, and the revision.

The planning stage of the module was comprised of several activities. They were sharing with the lecturers of the Development of Elementary Learning for feedback and discussion related to the form of systematic and content of the module in order to contain what is in accordance with the needs of competence stipulated in the description of the courses as well as learning experience by students taking the course. The systematic module used in this study was referred to the guidelines for the module development in order to increase the competence of primary school teachers through the integrated training programs conducted by the Pusbangprodik Kemendikbud (The Teacher Professionalism Center of the Ministry of Culture and Education).

The result of the validation analysis of the module development is presented in Table 1.

Table 1 Result of the module validation

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects to assessed</th>
<th>Average</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Display</td>
<td>4.83</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>Contents</td>
<td>4.9</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Language</td>
<td>4.83</td>
<td>Very Good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>4.85</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

While the validation results of the questionnaires to obtain respondents obtained a mean value of 4.83 for the format aspect format which was categorized as ‘very good’, the content of 4.6 (very good), and 4.25 (very good) with a mean value of 4.56 with the overall aspect was included in ‘very good’ category.

Based on the questionnaire result on the effectiveness of the module on the Elementary Learning Tool Development is shown in Figure 2.

Figure 2 the lecturers’ questionnaire results

Based on data from the students’ questionnaire results on the effectiveness of the learning modules can be seen in Figure 3.
The results of the small group and large group trials showed that the effectiveness of the module on the learning device development included the following aspects: (1) Meeting the needs of competence development of learning: 33.33% of the lecturers' responses was 'strongly agree' and 66.67% agreed, 21.1% of the students' responses were 'strongly agree', 7.73% 'agree' and 71.17% 'disagree' (2) Meet the module objectives: 40% of the lecturers' responses were 'strongly agree' and 60% 'agree'; whereas 6.6% of the students' responses were 'strongly agree', 93.4% 'agree'. (3) Addressing the module function: 20% of the lecturers' responses were 'strongly agree' and 80% 'agree'; while 16.7% of the students' responses were 'strongly agreed', 70% 'agree' and 13.3% 'disagree', (4) the usefulness of the module: 13.23% of the lecturers' responses were 'strongly agree', 86.6% 'agree'; whereas 18.87% of the students' responses were 'strongly agree', 78% 'disagree' and 3.13% 'disagree.' (5) Fostering interest in learning: 20% of the lecturers stated that they strongly agreed and 80% agreed; while 10% of the students strongly agreed, 88.35% agreed, and 1.65% disagreed. (6) Developing the character of students: 20% of the lecturers strongly agreed and 80% agreed; while 21.7% of the students' responses were 'strongly agree' and 78.3% 'agree'.

The questionnaire responses of the potential users, i.e. lecturers on the quality of the elementary learning device development module are as follows.

Table 2. The questionnaire results of the potential users (lecturers) on the module quality

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspects Considered</th>
<th>X</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Display module</td>
<td>4.5</td>
<td>very good</td>
</tr>
<tr>
<td>2</td>
<td>Contents</td>
<td>4.3</td>
<td>very good</td>
</tr>
<tr>
<td>3</td>
<td>Feasibility of contents</td>
<td>4.4</td>
<td>very good</td>
</tr>
<tr>
<td>4</td>
<td>Language</td>
<td>4.3</td>
<td>very good</td>
</tr>
<tr>
<td></td>
<td>On average</td>
<td>4.39</td>
<td>very good</td>
</tr>
</tbody>
</table>

Table 3. The questionnaire results of the potential users (students) on the module quality

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects considered</th>
<th>Average 1</th>
<th>Average 2</th>
<th>X</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Display of module</td>
<td>4.09</td>
<td>4.66</td>
<td>4.38</td>
<td>very good</td>
</tr>
<tr>
<td>2</td>
<td>Contents</td>
<td>4.16</td>
<td>4.52</td>
<td>4.34</td>
<td>very good</td>
</tr>
<tr>
<td>3</td>
<td>Feasibility of contents</td>
<td>4.17</td>
<td>4.66</td>
<td>4.42</td>
<td>very good</td>
</tr>
<tr>
<td>4</td>
<td>Language</td>
<td>4.05</td>
<td>4.6</td>
<td>4.33</td>
<td>very good</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>4.12</td>
<td>4.61</td>
<td>4.37</td>
<td>very good</td>
</tr>
</tbody>
</table>

Based on the results, the responses of the lecturers and students on average stated 'strongly agree' by 20.13%, 73.42% agree, and 6.45% disagree regarding the effectiveness of the learning device development module. This is consistent with the study by Ismail, et al (2009) about the effectiveness of the modules used in training to increase the ability of the teacher's knowledge in Jordan. The developed module consisted of 10 sessions covering three
dimensions, namely planning, classroom management and evaluation. The results show that there is a significant difference in the average score of the post tests administered to both experimental and control groups. The module proved to play an important role in developing the instructional competencies of the special education teachers.

The results of the small group and large group trials showed that the quality of the module are concerned with these aspects: (1) the display of module (including cover, systematic, numbering, arrangement, and layout), the lecturers had a mean score of 4.5 (very good) and the students responded with the average score of 4.38 (very good), (2) the module content (i.e. completeness of the content of the module, the introduction, and the learning activities), the lecturer stated with a mean score of 4.3 (very good), the students expressed by the average score of 4.31 (very good). (3) the eligibility module content (i.e. inconformity with the needs of the attainment of the development of learning at the elementary school level, describing the content of the material, compliance with the 2013 curriculum allowing the students to actively learn, eligibility of media/ source of independent learning, adding to and helping achieve the competence to develop learning device, the coverage of examples in module, the coverage of exercises in the module, depth and breadth of content of the module, a summary/overview, formative tests, glossary, bibliography, lecturers stated with a mean score of 4.4 (very good), the students expressed by the average score of 4.42 (very good). (4) language (language used, the use of the standard language, instructions/commands in the module, quotation), the lecturer stated with a mean score of 4.3 (very good), the students expressed by the average score of 4.33 (very good).

Based on the results of the data, it showed that the responses of the lecturers and the students on average were of the quality of the elementary learning module developed in this study and was categorized as ‘very good’ with a mean score of 4.38. The content and eligibility of the module contents in this module shows the very good category, thereby allowing students as the module users to be more effective and efficient in achieving competences in the development of elementary learning device. This is supported by Rowland and Adams (1999: 33) stating that this aspect answers questions about what knowledge and skills are required to meet the needs, that is, to reduce the gap in performance. This requires a teacher to consider this aspect to carefully select what knowledge and skills are included in the learning system, and ensure that these materials can support their success in meeting the needs of learners and achieve learning objectives.

According to Kirschner (1997: 89), to support successful learning, a teacher must be creative in creating ideas in designing a new learning system that is capable of making the students participate actively and can achieve learning goals. It is included in a process component that focuses on strategies, models and teaching methods. This can be accomplished with the support of the modules that are effective in meeting the needs of the development of learning competencies.

Van den Akker and Nieveen (1999) stated that in the development of learning models, it is necessary to meet the quality criteria namely the validity, practicality, and efficacy (effectiveness). With the development of the module on developing elementary learning, effective learning can be achieved and it would enable the students are to achieve competences in developing a learning tool in elementary schools.

**CONCLUSION AND SUGGESTION**

**Conclusion**

Based on the results of the research while, it can be concluded as follows.

1. Through the various stages of the development of the modules including the planning, module writing, module validation, small group trial, large group testing and revision, it has resulted in the module prototype. The results of data analysis showed that the overall validation of the module developed, including the results of the validation by experts having the ‘excellent’ category with a score of 4.85.

2. From the responses of the lecturers teaching the Development of Elementary Learning course
and the students who were and had been taking the course, 20.13% of them stated that they strongly agreed, 73.42% agreed, and only 6.45% disagreed that the learning module developed in this study was effective for use as a learning resource in the course.

3. From the responses of the lecturers teaching the Development of Elementary Learning course and the students who were and had been taking the course, it indicated that the learning module development kit developed in this study was regarded to have a very good quality with a mean score of 4.3.

**Suggestion**

With reference to the above conclusion, some suggestions are presented as follows.

1. A needs analysis for the competence achievement of students in elementary schools to develop learning tools will not be sufficient if it is only conducted with colleagues/lecturer of the courses as well as the scrutiny of the course descriptions, but it will better engage students and stakeholders, for instance, teachers/practitioners in primary schools) to give a better picture of about the need for real competences in developing a learning tool in elementary schools.

2. It is necessary for the lecturers of the course to develop similar modules to support the achievement of competencies related subjects, thus enabling the achievement of effectiveness for the lectures to gain more optimal efficiency.

3. There is a need to do further research to discover the results of implementation of the module developed in this study, so the usefulness of this product can be more complete, effective and of quality in an effort to help the students in improving competences in the development of learning in elementary schools.

**REFERENCES**


ACTIVE LEARNING MODEL FOR INCREASING STUDENTS’ LEARNING CREATIVITY IN THE BASIC CONCEPT OF SOCIAL SCIENCE SUBJECT

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ABSTRACT
This classroom action research aimed to increase students’ learning creativity in the Basic Concept of Social Sciences. The research question was “Can the active learning model increase students’ creativity in participating in the subject?”. The data collection techniques were observation and interview with questionnaire instruments. Based on the analysis of data, it can be summarized that the application of active learning could increase the student’s learning creativity in participating in the basic concept of social sciences. This is proven by the observation result that in cycle I there were 12 different components in the medium categories and 6 in the good category. In cycle II, there was an increase of 8 points to good category and 10 to very good condition.

Keywords: Active Learning model, Learning Creativity

INTRODUCTION
This globalization era lead the human resources to be creative and produce innovative works. Indonesia still needs creative and competent human resources to produce innovative work. Prospective primary school teachers should be armed with knowledge that emphasize on how to facilitate students’ learning to think creatively and has competence to work together, to understand their potential, to improve performance, and to communicate effectively in solving problems they faced.

Creative human resources can develop what they have before into something new so they can create new creations. In the teaching learning process, it is better for teachers to encourage students to pour their ideas. Teachers are expected to give confidence to the students in order to help improving their creativity properly.

Clark Mountakis as stated by Munandar (2019: 18), creativity is an experience to express their thoughts to herself, others, and nature. This form of expression can be showed from the students’ experience in their environment, general skills in creating something new, as the ability to provide new ideas that can be applied in solving problem, or as the ability to see new relations between the elements that already exist.

According to Sudarma (2013: 9), creativity is the ability to make everything in the form of ideas, concepts, actions, and products. Anything can be invented or created in many varieties. When making this result, there are several aspects that need to be considered, such as planning or ideas that will be used, finding materials and tools that may be different from the usual, and the ability to perform well.

Based on those opinions, it can be concluded that creativity is the ability of a person to create something new from ideas and the concept he had so it will have usefulness result.

Piers (Astori, 2009: 72) stated that the characteristics of creativity are; (1) Having a high drive, (2) Having a high level of involvement, (3) having great curiosity, (4) Having high persistence, (5) Tending to not satisfied with the settlement, (6) Having a high confident, (7) Having a high independence, (8) Having freedom in decision-making, (9) Accepting ourselves, (10) Having humor, (11) Having high intuition, (12) Tending to attracted to complex things, (13) Having tolerancy to ambiguity, (14) Having sensitive characteristics.

Basically, everyone has creative talent and skill to express themselves creatively, though each has different fields and level (Alfi Laila & Sutrisno Sahari, 2016: 4). As Utama
Munandar suggests (as stated in Alfi Laila & Sutrisno Sahari, 2016:4) to measure the development of creativity are the Personal, Pressure, Process, and Product that will be develop into instruments in this research. **Personal creativity** is an expression of individual uniqueness in the interaction with the environment. Creative expression reflects the originality of the individual. From this individual uniqueness expression it can be created new innovative ideas and products. **Pressure**, definition category and approaches to creativity stressed on “Pressure”, either internal pressing (from ourselves in the form of desire and passion to create creatively) or external pressing from social and psychology environment. **Process**, to develop creativity, students need to be given the opportunity to make themselves busy actively. Teachers should be involved in creative activity by giving necessary infrastructure. The definition of process is similar to the steps of the scientific method. Here are the creative steps according to Wallas (as stated in Alfi Laila & Sutrisno Sahari, 2016:4) which are still applied in the development of creativity: preparation, incubation, illumination, and verification. **Product**, the definition focuses on creative product stressed on the originality and ability to make new combinations which have social meaning. Conditions that allow a person creates meaningful creative products are personal condition and environmental condition, which is how far it presses a person to involve herself in a creative process (bustle, activity). With its talents, personal creative characteristics, and pressing (internal and external) to make herself busy creatively, then the meaningful creative product will appear itself.

In the teaching learning process in the classroom, the students are required to be active and creative. Creativity can create a new situation, not monotonous, and creative so the students will be more engaged in the teaching learning process. Creativity is a mental process that refers to the ability to think original compare to the other people. Ideas and creative concepts do not appear itself but need to be prepared.

During the teaching learning process, the writer observed the basic concept of social studies subject. In fact, many students were less creative in doing the tasks. They just copied pasted from the internet without changing the content. They just want to make it simple and did not want to try to create it their own. In addition, based on the writer’s observation and interview, their motivation to take the classes was still low. Some were forced to study because of their parents, intention some just followed their friends rather than sitting quietly at home, and some even said they just need the pocket money from their parents. Only a few students whose motivation from themselves. It was because they wanted to gain knowledge then later become a bachelor and able to get a settle job. Because of the wrong motivation from the beginning, it caused the students not to be serious in attending the teaching learning process and did not follow the learning well. Never did the tasks, always came late, always absent, or attending the class but always made noise in the classroom (talking to friends).

The learning of “active learning” is a learning based on research, it is one of a learning approach that is oriented on students activities (Student Centered Learning or SCL). Learning oriented on students’ activities means the learning system puts the student as an active learner and has readiness to learn. Therefore, each teaching learning process requires the involvement of the intellectual-emotional students through assimilation and cognitive accommodation to develop knowledge, action, and direct experience in order to establish skills (cognitive, motoric, and social), appreciation and internalization of value in the form of attitudes (Ali Muhtadi, 2009).

According to Bonwell (as stated in Mukhlison Effendi, 2013: 288) the active learning has these characteristics: (a) the emphasis of the teaching learning process is on the development of analytical and critical skills to the topics or issues being discussed not on the information delivered by the teacher; (b) students are not passively listening to the teacher’s explanation but students should work on something related to the lesson; (c) emphasis on the exploration of values and attitudes related to the lesson; (d) students are required to think critically, analyzing, and do evaluation; (e) faster feedback will occur in the teaching learning process.

Mukhlison Effendi (2013: 288) suggests the characteristics of active learning process as follows; a) class situation challenge the students to study controllably; b) the teacher does not dominate the teaching learning process but the teacher give chance to the students to solve
problems; c) the teacher provides and ensures learning resources to the students, it can be written resources, human resources, for example the students explain the problem to the other students, various media needed, teaching aids, it included the teacher itself as a learning resources; d) the learning activities are various, there are activities that required all the students to work together, there are group activities in the form of discussion and there are activities that required the students to work independently. The application of the learning activities are organized by the teacher systematically and planned; e) the teacher put himself as a supervisor to all of students who need help when they face the learning problem; f) the class situation and condition are not rigid, but it can be changed any time according to the students’ need; g) learning is not only measured by the result achieved by the students but also from the learning process done by the students; h) there is courage from the students to tell their opinion through their questions and statement, which told to the teacher or to the other students to solve the learning problem; i) the teacher always respects to the students’ opinion whether it is right or wrong. Even, the teacher should encourage the students to tell their opinions freely.

The research conducted by Mukhlison Effendi showed the integration of active learning and internet-based learning could improve activity and creativity of students in PGMI (Program Studi Pendidikan Guru Madrasah Ibtidaiyah). Factors that supported these results were learning strategies, giving clear instructions, high students’ motivation in learning, and the availability of infrastructure. Likewise with a research conducted by Alfi Laila and Sutrisno Sahari about the improving of students’ creativity by using used materials in media learning subject, the result was students’ creativity increased from 1, 2, and 3.

Based on those backgrounds, the writer is interested to try applying active learning model in basic concept of social studies. The active learning model intend’s to optimize the use of potential owned by each individual so each individual can achieve satisfactory result in line with their characteristics (Hartono, 2008).

The implementation of active learning model can be developed into 8 stages of learning procedures, namely; 1) orientation, 2) group formation, 3) group work assignment, 4) exploration, 5) presentation in the class, 6) checking the understanding and deepening the material, 7) reflection and feedback, 8) formative evaluation (Ali Muhtadi, 2009).

The research question in this study inquires whether the implementation of active learning model can improve students’ learning creativity in Basic Concept of Social Studies subject. This research is aimed to improve the students’ learning creativity in learning Basic Concept of Social Studies.

METHOD

This research is a classroom action research. The stages of this research are planning, action, observation, and reflection in two cycles. The action is in the form of students’ learning creativity in doing tasks given by the teacher with the using of environment, books, and internet.

The participants in this research were the second semester students who took Basic Concept of Social Studies (IPS) class. The research began with the observation in the first semester. From that observation, the writer conducted the data recapitulation and designed classroom action research in second semester. The study was conducted for one semester during the teaching learning process. The participants were 20 participants. The data collections were observation and interview.

The classroom action research was conducted in the form of cycle consisting of preparation, planning, implementation, observation, and reflection. Activities carried out in the preparation stage were identifying problem, then formulate the problem operationally. In the planning stage, there were activities; a) established a learning contract that will be conducted for one semester with various learning alternative; b) forming groups for discussion and making papers. At this stage conducted the preparation of the implementation of students’ creativity stages in finishing the tasks given by the teacher that was reviewing the result, making paper, and present it. Besides that, the students were also given independently task making IPS simple concept application that can be applied in elementary school and can be profitable for elementary students; c) observation was conducted with observation sheet that has been made.
Teacher’s activity data in lecturing

Teacher’s activity in lecturing was observed through 4 aspects (personal, pressure, process, and product). The teacher’s observation sheets consisted of 12 activities with 0-4 score. Here is the score formula:

\[
\text{Average} = \frac{\sum q}{\text{Number of item}} \quad \text{with} \quad q = \frac{\text{SP}_1 + \text{SP}_2}{2}
\]

Assessment criteria on teacher’s performance:

- \(0 \leq \text{average} < 0.8\) : extremely poor
- \(0.8 \leq \text{average} < 1.6\) : poor
- \(1.6 \leq \text{average} < 2.4\) : average
- \(2.4 \leq \text{average} < 3.2\) : good
- \(3.2 \leq \text{average} < 4\) : very good

Table 1
Teacher’s Observation Sheet in lecturing

<table>
<thead>
<tr>
<th>No.</th>
<th>Stage</th>
<th>Indicator</th>
<th>Achievement category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First cycle</td>
<td>Second cycle</td>
</tr>
<tr>
<td>1</td>
<td>Introduction</td>
<td>1. Teacher starts the class with praying</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Explain the purpose of the lesson</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Apperception</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Core activities</td>
<td>1. Brief explanation about learning activities for one semester</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Orientation on the implementation of the lesson that will be conducted</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Group forming</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Improving the curiosity and pressing the problem solving</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Direct the students to think critically</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Implementation</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Presentation, asking and answering questions, discussion</td>
<td>Average</td>
</tr>
<tr>
<td>3</td>
<td>Final activities</td>
<td>1. With the students making conclusion</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Reflection</td>
<td>Average</td>
</tr>
</tbody>
</table>

Response data and students’ creativity

Students’ creativity was assessed from observation sheet on each learning activities which is as an indicator from that creativity. The students’ creativity observation sheet consisted of 4 activities that were the indicator of creativity, with score 0-4. The formula to calculate for each indicator is:
Assessment criteria on students’ creativity:

0 ≤ average ≤ 0.8 : extremely poor
0.8 ≤ average ≤ 1.6 : poor
1.6 ≤ average ≤ 2.4 : average
2.4 ≤ average ≤ 3.2 : good
3.2 ≤ average ≤ 4 : very good

The formula to calculate the average of observation on each cycle:

\[
\text{Average} = \frac{\text{SP} \, 1 + \text{SP} \, 2}{2}
\]

Assessment criteria on average observation:

0 ≤ average ≤ 0.8 : extremely poor
0.8 ≤ average ≤ 1.6 : poor
1.6 ≤ average ≤ 2.4 : average
2.4 ≤ average ≤ 3.2 : good
3.2 ≤ average ≤ 4 : very good

Table 2

Students’ Creativity Observation Sheet

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect observed</th>
<th>Achievement category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cycle 1</td>
</tr>
<tr>
<td>1</td>
<td>Having creativity</td>
<td>average</td>
</tr>
<tr>
<td></td>
<td>a. Has confidence</td>
<td>average</td>
</tr>
<tr>
<td></td>
<td>b. Has diligence</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Giving pressure</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>a. Giving encouragement to himself and others</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>b. Has never give up attitude</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Creative process stages</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>a. Preparation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. the ability to formulate problems</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>2. gather facts or material that are useful to solve problem</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>b. Incubation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. tenacity in solving problem</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>2. solving problems in various ways</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>3. finding or designing media presentation very well</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>4. dare to look for another problem and solve it</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>5. encouraged to solve difficult problem</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>6. respect others’ opinion who are different</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>c. Lumination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. the ability to solve problem</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>2. applying concept, attitude, and formula in solving problem</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>d. Verification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. the ability to revise the of problem solving</td>
<td>Good</td>
</tr>
</tbody>
</table>

Average = total score for each indicator

Number of students
<table>
<thead>
<tr>
<th>2. has creative product</th>
<th>Average</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. finding a lot of knowledge</td>
<td>Average</td>
<td>Good</td>
</tr>
<tr>
<td>4. able to develop skills</td>
<td>Average</td>
<td>Very good</td>
</tr>
</tbody>
</table>

**Reflection**

Reflection activities was carried out to analyze the lackness in cycle 1 to improve the teaching learning process to the next cycle. To know the success of the action, so the result of the students’ creativity observation was measured by the success of previous criteria.

**RESULTS AND DISCUSSION**

Efforts to improve students learning creativity is done in each cycle. At the first meeting, the teacher made a lesson contract with the students for one semester. When the learning activities conducted, all of the students’ activities were observed.

In cycle 1, the teacher opened the lesson, delivered the aim of the lesson, apperception, and made a lesson contract for one semester. Explained the tasks that should be done by the students and directed how they should do. Once the students understed and grasped the task, they were given the chance to do the task. Each group got one topic that will be discussed in their group. Once they have finished discussing the topic, they were asked to write a paper and make a power point then present it. For students who did not do the presentation, they were given the opportunity to respond or ask question to the group who did the presentation. The inputs given by other students were recorded used to improve their paper.

The implementation of cycle 1 in the orientation component of lesson, resulted that the achievement gained by the teacher was enough/average so it needs to be improved. As well as to these components; arising students’ curiosity, directing the students to be creative and at the time of implementation, and teacher’s reflection was not maximum to motivate students to ask and involve the lesson directly. Students were rarely asking questions, passive and showed less listening.

In the second cycle, the number of components increased. It was from good criteria to very good, from average to good even to very good. These components were delivering the lesson, brief explanation about learning activities, implementation, improving the curiosity, presentation, discussion, and reflection. In this second cycle, the students looked more active and creative compare to the first cycle. Their creativity in making power point, in delivering the material, and in explaining looked more stable compare to cycle 1.

The result of students’ creativity observation sheet showed in the first cycle there were 12 components that are in “average” category and 6 components in “good” category. In the second cycle, it was increasing. Eight were in “good” category and 10 in “very good” category. It showed that students’ creativity has increased when using active learning model in learning process.

The results of this study support the findings done by Mukhlison effendi. The integration of active learning and internet-based learning can improve students’ learning creativity in PGMI. Also, in line with Alfi Laila and Sutrisno Sahari about the increasing students’ creativity by using used materials in the learning media subject. The result was students’ creativity has increased from cycle 1, 2, and 3.

The results of this study are also in line with Bonwell’s theory (as stated in Mukhlison Effendi, 2013: 288). Active learning is not only on the information given by teacher but also on students’ ability in analyzing each problem faced then finding the solution. The students are required to be more competent in finish it. When the teacher gave tasks to the students, it is better for the students to respond well and do it with full responsibility. Besides being able to do the task well, hopefully, the students can apply it in their daily activities even when they have been graduated, and as a teacher can be applied in teaching learning process.

From the result of the interview, the students said that they are motivated by using active learning model, because the learning was fun and motivated the students to study continuously and sought other sources not only from the internet.
CONCLUSION

Based on the data analysis can be concluded that the application of active learning model can improve students’ learning creativity in Basic Concept of Social Studies (IPS) lesson. It was proved from the result of students’ creativity observation sheets. It showed that in the cycle 1 there were 12 components in “average” category and 6 components in “good” category. In the cycle 2, it increased, 8 were in “good” category and 10 were in “very good” category.

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BIODATA

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Email: firosalia.kristin@gmail.com
MUSEUM AS MEDIA AND SOURCE OF HISTORY LEARNING OF UNIVERSITY STUDENTS

Franciscus Xaverius Wartoyo
STKIP PGRI Sidoarjo
yovkwartoyo97@gmail.com

ABSTRACT

It is a descriptive qualitative research with single case study. The sources of data were: (1) informants; (2) places; (3) archives and collection of Prambanan Museum. The data were obtained by applying some techniques, namely: (1) interview; (2) observation; (3) recording the documents. The sample were taken by using purposive sampling from tour guides of Prambanan museum, teachers of History, the officials of BP3 DIY, and triangulation. The data were analyzed interactively. Based on the result of the research, it can be concluded that: 1) some lecturers of History of PGRI STKIP Sidoarjo did not understand about the existence of the Prambanan museum. It was shown that most lecturers were teaching cultural history theoretically. 2) Collection of the Prambanan Museum that can be used as media of learning directly related to material to be analyzed about development of the Mataram kingdom life: Hindu, Buddhist. 3) the reasons for not using a museum as media and source of learning were: ignorance of the existence of the museum, lecturers of the Department of History Education of STKIP has not always scheduled a study tour every year.

Keywords: Media, source of history learning, Prambanan Museum

INTRODUCTION

In a nation’s life, education is considered very essential thing and it should receive more attention. Education is an effort of enabling a human being to develop his or her potential through learning or other means which are known and recognized by community (Department of National Education, 2003: 49). If a country has a good quality education, then it is likely that the country will progress in all aspects of life. This also what is happened in Indonesia, namely Indonesian Government wants to improve lives of people by implementing education for all Indonesian citizens from urban to rural societies without exception. The determination of government to provide education is contained in Article 31 paragraphs 1 and 2 of the 1945 Constitution.

Higher education is an educational institution with important role in achieving the goal of education, namely to educate the nation, in this case learners. A communication process always involves three main components consisting of a sender and a recipient of a message, and the message itself which is usually material of a lecture. Media of education is an indispensable base that is a complementary and integral part of successful teaching and learning process, not only in primary education, but also in higher education.

Learning will be more clear and effective if teachers use various teaching aids to help explain a material of lecture more realistically. In order to realize the learning, then in history education, it is necessary to locate and determine appropriate media of learning that is extremely important for faculty and students.

Relating to issue of learning media, educators of higher education at present is still limited to modules of lectures, blackboard, and pictures. They are not direct experiences that can be felt by students. Today, some universities of Sidoarjo town are starting to explore the use of audiovisual media because of technological advancement. However, it is also not a direct experience. Continuous use of such education media might make students to feel bored sometimes, and also, it often may cause misperception of students, especially in next days when they are history teachers or guides who are expected to implement results of their education in the field as companions in any scientific works or tour studies involving history. Since role of history teacher is mostly significant in guiding a program of study tour or field activity. Based
on the problem, then selection of a learning media to use is very important to consider by lecturer or educator to provide direct experience for students.

In the globalization era, there are many students who do not know cultures of their homelands due to lack of available learning media and less creativity in studying material of lectures or it could have been derived from teaching methods applied during in their courses. This is certainly a common concern, especially for education practitioners. Learning of history at present is mostly still conventional because the learning dominated by varied method of lecture and relying on classroom learning.

The learning encourages instructor and students to find connections between theory and environment surrounding by applying an inquiry model. However, this learning has not been implemented effectively and efficiently yet, so that result of history learning was not met expectation yet. In order to achieve a quality education, we need a good learning. A study is said to be good when it able to convey abstract material to be as clear and concrete s possible in a process of learning, so that students can receive material of a course optimally. To make real the learning method, a directly visible resource of learning for the students is needed, so as to increase the learning motivation.

In connection with problem of learning resources, educators are currently using only particular books. This makes student's knowledge is limited only from the established source. The process of learning is seen less suitable demands of standards of education process and development of science and technology, particularly information technology. Therefore, lecturers should utilize learning resources other than textbooks. Related to this, the learning resources can be obtained from informant through interviews, websites on internet, and visit historical sites or museums.

Teaching and learning of history education in STKIP PGRI Sidoarjo is expected not only occurred in classroom, especially for subjects related to field study such as anthropology, and cultural history of Indonesia as it is very supportive for students who would be a guide, both in the context of education and tourism.

One of field study supports for history education program is historical sites or museums as a medium that can be used as a source of history education. Museum is a permanent, non-profit and public institution serving society and its development by acquiring, maintaining, connecting and exhibiting artifacts for purposes of research, education and recreation, (Sunarto, 2007: 1). A museum has educational values in building nation and improving understanding of a nation’s culture that ultimately could strengthen unity of the nation. In addition, a museum may also be used as a cultural and tourism information center capable of educating the nation and fostering innovative and imaginative ability, and enhancing civilization and pride in the national culture and strengthening the nation unity.

Museum has clear relationships with media and learning resources, especially for history subjects. Educational values of museum are, among others: (1) to make understanding of student on cultural wealth of the nation; (2) as information and tourism center capable of educating the nation; (3) to grow appreciative, innovative and imaginative capabilities of students; (4) to increase civilization and a pride in the national culture; (5) to strengthen cultural unity among nations; (6) to recognize local cultures found in surrounding areas so that it can be used as potential to increase understanding, especially in teaching history (Waseno, 2008: 3).

Museum is an important medium of history learning because it is enabling someone to recognize the origin and identity of a nation and its culture in the place. Through a museum with its collection, a visitor can be invited to wander into the past. Thereby, a museum is also as a source of knowledge reflecting all evidence of human’s proofing and environment in the past. In fact, however, a museum has not been used effectively and efficiently in learning of cultural history.

The program of history education is one of unique courses with particular purpose of developing nationalism and patriotism values in shaping character of the nation, so teaching and learning strategies at university level must be adapted to the needs of future workers or demands of era related to graduates of educational history. Because graduates of history education have great responsibility, not only from scientific aspects but moral one, especially with regard to intellectual life of the nation.
Based on background of the problem, then a problem statement can be proposed: “How Prambanan Museum can be used as media and Source of Cultural History Learning for Students of STKIP PGRI Sidoarjo?”

Purposes of the paper are to describe, among others: 1) role of museum in enhancing source of cultural history learning, especially for STKIP PGRI Sidoarjo. 2) Collection of the Prambanan Museum as media and source of cultural history learning.

Word ‘museum’ comes from word ‘museion’ meaning a worship building of muses, the goddesses of branches of activities or expression of science and art (Sutaarga, 1999).

Directorate of Museum and Culture (1986) classified types as follows: (1) Public Museum is museum with no limitation of collections; (2) Special Museum is a museum with limited types of collections; (3) Education Museum is a museum limiting its collection to particular level of education. In addition, according to the International Council of Museums (ICOM) cited in Sutaarga (1976) museum has several functions, namely among others: (a) collection and safeguard of cultural heritages. A museum serves as a place to collect ancient objects to be used as a legacy for future generations; (b) documentation and scientific research. A museum is used as instrument of natural education and scientific research; (c) conservation and preparation. A museum is instrument to measure scientific nature of objects; (d) introduction and appreciation of art. A museum serves as a means of studying local arts.

Learning is a process of interaction of learners, educators and learning resources in a learning environment. Learning is a help provided by educators to learner in order to enable a process of knowledge and science acquisition, mastery of skill and character, as well as the formation of attitudes and beliefs of learner. In other words, learning is a process to assist students to learn well. Process of learning is a lifelong experience of human being and applicable at anytime and anywhere. Term "learning" is similar to "instruction" or "teaching". Teaching has a sense of how to teach or teach (Purwadinata, 1967: 22). A learning is also often referred to as a process of learn. Learning is a process of change in behavior due to interaction with environment. A person is said to have activity of learning after he obtain results, i.e., a change in behavior, such as from not knowing to knowing, from unawareness to awareness and so on (Hamalik, 1985: 40-41)

One of ways in achieving goals of national education is to improve quality of learning process. The learning process consists of several components supporting to each other. These components are teacher, in this case, a university lecturer, students, and material of lecture. The three components must be mutually supportive, student is not only an object but also a subject requiring guidance from a lecturer in understanding material of instruction in accordance with goal to be achieved.

In order to achieve goal of education, instructor or lecturer as spearhead of educational implementation in the field is critical for successful education. How ideal a course matriculation can be, but without being followed by ability of lecturer in implementing it in lecture activities, then the matriculation would have been meaningless. Thereby, standards of educational process of teachers and professors is serving as guidance in planning of a learning programs, both programs of certain periods and daily learning program, and as guideline for implementation of the program in real world activity (Wina, 2006: 6)

Word ‘media’ comes from Latin that is plural form of word ‘medium’ which literally means "mediator" or "conductor" (Sadiman, et al, 2006). So linguistically, media means message messenger from sender to receiver. More specifically in education, understanding of media in a process of teaching and learning tends to interpret as graphics, photographic, or electronical tools to capture, process, and reconstruct visual or verbal information (Azhar Arsyad, 1996).

According to Azhar Arsyad (2003), media of education has general characteristics as follows: 1) media of education has physical sense which is recently known as hardware, an object that can be seen, heard, or touched with the five senses; 2) media of education has a nonphysical sense known as software, namely message contained in hardware that is a content intentionally delivered to learners; 3) emphasis of educational media is placed in audio and visual media; 4) media of education is understood as aids in a learning process, both inside and outside of classroom; 5) media of education is used in context of communication and interaction.
of teacher or lecturer and learners in the learning process. 6) media of education can be used publicily (e.g. radio, television), in large and small groups (e.g. films, slides, video, OHP), or individually (e.g. modules, computer, radio tape/cassette, video recorder).

Based on the understanding of media from various opinions above, it can be concluded that definition of media of education or media of learning is anything that can be used to deliver a message from a sender to a receiver so that stimulates mind, feeling, concern, and interest and willingness of learner such that a process of learning occurs in order to achieve goal of the learning effectively.

MUSEUM AS MEDIA AND SOURCE OF LEARNING

Function and role of museum can be used in life. According to Douglas (1967) function of museum is able to give encouragement to develop idea. In addition to function of collecting, identifying, recording and then, exhibiting. The function explains position of museum that is not only to exhibits inanimate objects, but also invite historians, experts on history, society, teachers and students to get more knowledge and information about values of the historical heritage.

Museum in relation to historical or cultural heritage is an institution of keeping, maintaining, safeguarding, and utilizing of material evidence of cultural artefacts and natural and environment products to support protection and preservation of cultural wealth of nation (Article 1 (1). Governmental Regulation No . 19 of 1995). In relation to science and culture, museum has a very broad sense in general. Collection of museum is a material or object of scientific research. Duty of museum is to conduct, complete and develop availability of objects and means of the scientific research for anyone who needs it.

Collection of Prambanan museum comes from Archaeological Heritage Preservation Service of Yogyakarta and Central Java provinces. Based on inventory list of the two offices, information regarding amount, type, condition of collection of Prambanan Museum was obtained. Not all types of collections can be used as media and source of learning. Several types of collections that can be used as media and source of historical study are as follows: (1) family of Shiva (Shiva, Durga Mahisasuramardini, Ganesa, Lingga) because based on Javanese inscription of 778 Saka year that the known last name of Prambanan temple was Siwagraha, a house of Shiva. identification of Siwaghras name as Siva temple is more based on placement of Shiva in the largest temple flanked by Brahma and Vishnu temples; (2) Tri Murti (Brahma, Vishnu and Shiva) because it was deemed as important in Hinduism; (3) a statue of Buddha (Amitabha, Awanlokiteswara and Manjushree) because it was seen as a famous Buddhist figures. Additionally, (Amitabha) is in accordance with indicators , namely to explain continuation of Hindu-Buddhist tradition after the collapse of Hindu-Buddhist kingdoms in Indonesia; (Awanlokiteswara and Manjushree) is in accordance with indicators describing the birth and development of Hindu-Buddhist religion and culture in Indonesia, (4) Miniatures of Temples: Prambanan and Borobudur because it can help explain materials of temple’s architecture, as an example, parts of a temple is, in general, consisting of foot, body, and roof of a temple. It can also be used to explain material of Prambanan temple, which is one of evidence of Ancient Mataram Kingdom glory.

Chief of Working Team of Registration of Data Collection and Documentation of BP3 DIY (Eka Hadiyanta) and the Prambanan Museum’s guide (Sugiyanto) in an interview said that all collections of the Prambanan Museum can be used as media and source of learning about history because all objects have historical value. All collections coming from in Hindu-Buddhist era have a common in time.

Hardjanto, an observer of history said that collection of the Prambanan Museum which can be used as media and source of history learning are: (1) statue of Bodhisattva, a Buddhist candidate, so it is very appropriate to describe material on Buddhism and it is considered more important than Buddha because it can help thousands of people to enter nirvana; (2) Ganesh (son of Shiva) statue, lingga-yoni (embodiment of Shiva and the Sakti of Parvathi), Durgamahasurasuramardini (Sakti Siva) statue, Agasty statue and Mahakala statue (embodiment of Shiva), Nandi (Shiva’s riding) statue, because it is an important member of Shiva family and appropriate to explain Hinduism material on the subject of one of the highest gods , namely Shiva; (3) statue of Vishnu with Ramavatara (Rama as a Vishnu incarnation) and Brahma as
trimurti, namely the highest gods in Hinduism regarded as the preserver god and creator god is appropriate to explain subject matter about Trimurti in Hindu; (4) statue of Buddha (a figure who was founded Buddhism), Fragment of Buddha statue (pieces of Buddha), Manjushri (famous Bodhisattva), Amitabha (Buddha highest) statue, Aksobhya statue, Pandara (Sakti of Awalokiteswara, one of Bodhisattva), Dwarapala (a gate keeper statue in Sewu Temple, a Buddhist temple) because it is suitable to explain material of Buddha.

Four groupings mentioned by observer of history (Hardjanto) is in accordance with development of life of Hindu-Buddha kingdoms in Indonesia and they are able to describe social, economic and religious life of Hindu-Buddha kingdoms in various areas. According Hardjanto, actually almost all of the collections can be used as media and source of history learning because they are related to the basic competence in analyzing influences of Hindu-Buddha religion and culture on society in various regions of Indonesia, but considering limited time, not everything can be used.

Based on findings of the study, professor or instructor of history generally understands the existence of available museum. Low curiosity of professor of history on education of history in museum will influence selection of media and source to use in learning history. A professor of history who is aware of the existence of museum are likely to take advantage of the museum which is a learning source of history as a medium of learning, but the contrary is the case if a professor does not understand about it, possibility of using a museum as media and source of learning will be small. This is consistent with Luthfi (2010) that learning is not necessarily through formal education, one can learn through other learning sources including museum.

Less active management of a museum may cause poor introduction of the museum to public around it, so it will be very natural that people do not know about the museum. One task of museum’s management is to communicate with neighborhood environment in order to introduce its existence. This is in line with Hadiasmara (1992) saying that a museum is an institution with duties of preserving culture by collecting, maintaining, researching, exhibiting and communicating it to public. A museum might be said as die if there is no visitor, because goal of museum establishment is to make people aware about existing cultural heritage and appreciate values of cultural heritage. This is in line with the Department of Education (1997) stated that goal of museum establishment is to guard cultural heritage for public, to exhibit life as a whole by means of communicating museum cognitively and evocatively, instill and increase appreciation of values of the cultural heritage of science, and documenting collection of the museum verbally or visually to public.

Understanding of museum existence is very important for a professor of history, because it can be used as a medium of history learning outside of classroom. This is consistent with Hamalik (2003) stating that media does not only include complex electronic communication media but simple tools such as slides, photographs, diagrams, charts made by a teacher, real objects as well as a going beyond classroom/campus. Museum can also be used as a source of history learning. This is in line with I Gde Widja (1991) that museum is a place to store source in forms of objects and written, such as text written in bottom part of sculptures or annotation in the back, sometimes short but often also quite long, about connection of the statues with historical events.

Museum can be used as a medium of history learning by using method of study tour. A study tour method is a learning activity undertaken through visiting places outside of classroom as an integral part of the entire academic activities in achieving goals of learning (Daryanto, 2010). Nonetheless, museum has advantages and disadvantages as media and source of history learning.

According Sudjana and Rival (2010), advantages acquired from activities of studying environmental included museum are: (1) a learning activity will be more interesting and not boring, so that learning motivation of student will be higher; (2) more significant meaning of learning because students are faced with real and natural situation and condition; (3) more enriched and factual materials of learning so that the truth is more accurate; (4) activities will be more comprehensive and active because it can be performed in various ways such as observing, asking questions or interviews, proving or demonstrating, testing the facts; (5) source of learning will be richer because a studied environment is diverse such as social environment,
natural environment, artificial environment; (6) students can understand and appreciate aspects of life found an environment, so as to form a personal who is familiar with the life around him/her, and it can foster a love of environment.

According to Widja (1991: 119-120), weaknesses of teaching local history including museum visit are: (1) special preparation is needed (especially for teacher/lecturer) before a lecturing activity of local historical can be implemented adequately; (2) integrate between demands of local history teaching and demands of learning material that should be completed as written in curriculum/syllabus; (3) organizing activities of student effectively is needed ranging from determination of topics, preparation and implementation of activities in the field, and making a report on the activities.

Based on the description above, it can be concluded that the understanding of history instructor on the existence of Prambanan museum is very important because it can influence selection of media and source of learning to use in history study. In the case of STKIP PGRI in Sidoarjo where some lecturers did not understand at the low level in accordance to Bloom’s taxonomy, museum and its collection have not been used as media and source of history learning yet. Although the campus has one media of learning that is also collection of museum, but it had not been used yet. Unlike the case with a lecturer of history who is familiar with the existence of the Prambanan museum, though it might not be used as media and source of learning yet, but they had already used several collections of the museum as media and source of learning in history classroom.

Collection of The Prambanan museum which can be used as a medium and source of history learning in STKIP PGRI Sidoarjo according to the Directorate of Museums (2010) is a man-made objects and natural one are preserved in the museum to be used for general collection can be in the form of the original object (reality), legitimate replicas or reproductions according to requirements of the museum.

Collections of the museum Prambanan included statues, miniatures of temples, drawings or graphic of figures founding of Prambanan temple. This is in line with Hadiasmara (1992) stating that collection of museum consists of: ethnographic, prehistoric, archeologic, historic, numismatic and heraldic objects, manuscripts, foreign ceramics,, works of art and craftsmanship, graphics object (photos, original map), diorama, natural history objects, replica, miniature and products of abstraction.

Not all of collections of the museum can be used as media and source of history learning. Collections that can be used as media and source of learning are statues such as Shiva, Durga Mahisasuramardini, Ganesha, Vishnu, Devi Sri, Manjushri, and Bodhisattvas, because the statues is viewed as manifestation of gods worshiped by their followers. This is in line with Sutjipto Wirjosuparto cited by Maulana (1997) Art of statues creating statues of gods is used to hold relationship with the gods, while the art of building is art of making building as a dwelling place of gods. The collection can be used as media and source of learning in accordance with basic competence to analyze development of traditional countries (Hindu-Buddhist kingdom) life in Indonesia.

Not all of collections of the museum can be categorized as type of movable statues considered from their small sizes and easy to move. This is in line with Maulana (1997) saying that chala statue is a movable statue meaning that the statue is easily moved because of its small size. Statues used as media and source of learning are Shiva family. Shiva is the supreme God with many devotees. It can be seen also in building of Shiva temple that is largest than Brahma and Vishnu temples in Prambanan Temple complex. This is in line with Maulana (1997) stating that Shiva in Hinduism mythology is known as the supreme god with many devotees.

Prambanan museum can be categorized as archaeological museum, because it has archaeological objects. Miniature temples of Prambanan and Borobudur including collections of the museum can be used as media and source of learning, because shapes of temples can be viewed as a whole although on a small scale. Most of statues displayed in the museum were parts of Prambanan Temple and Borobudur Temple. This is in line with Sutaarga (1998) stating that the Prambanan and Borobudur museum store collection of objects sculptures, parts of temples and inscriptions.
Based on the description, it can be concluded that collection of Prambanan Museum which can be used as media and source of history learning are statues and miniatures of temples. Museum is a place to store objects and written sources such as sculptures with annotation at bottom or back of them, some of them were short but some other often quite long, explained historical events in relation to the statues.

Museum has been not used as media and source of learning because of reason that teacher or lecturer had no idea about existence of Prambanan museum. It means that not all teachers of history understood about existence of museum in their regions. In fact, as a teacher of history, the understanding of cultural heritage is very important. It is in line with Bloom’s Taxonomy cited by Hisyam Zaini, et al (2002) saying that understanding is defined as ability to grasp the meaning of a teaching material.

Assumptions of teachers to the media and source of media learning affected selection of media and source of learning to use. If a lecturer has narrow view to consider classroom learning only, he or she will experience difficulty to use museum in neighborhood. This is in line with Sudjana (2010), that weaknesses resulted from activity of studying environment in which museum is belong to the environment is the insularity of teacher or professor considering learning only occurs in classroom.

Preparation in the use of instructional media is very important for a lecturer/educator because it determines good performance of learning. This is in line with Sulaiman cited by Suharto (2009) saying that the proper use of media of learning in accordance with competence, then one thing must be considered is stage of preparation, namely to prepare instructional media prior to use in process of teaching and learning.

A program of outdoor learning activities requires preparation and guide, in this case, a lecturer of the course. If it is not prepared properly, then it will be most likely that the outdoor course to experience obstacles. This is in line with Sudjana (2010) stating that weaknesses derived from activities of studying environment in the museum is less preparation of the learning activity, so students consider the learning as just playing around in the museum and the expected learning activities will not be achieved.

Implementation of a program of activities needs funds. If the fund is unavailable then the program will be likely to be failed. This is in line with Daryanto (2010) saying that weakness of learning by using study tour method, as visiting a museum, is more fund and extra responsibility required. This was what happened to the students of STKIP PGRI Sidoarjo, because of no allocation of funds for these activities, many instructors of history did not have an idea to visit the museum.

Outdoor learning by bringing students directly to the object of learning as in a museum would be much more meaningful because the students are faced with actual events or real situation. Lecturer or guide of a course should support it; time of implementation is not a constraint. The outdoor learning can use hours other than class hours, for example, on holiday. This is in line with Sudjana (2010) stating that outdoor learning activities by students are not limited by time. That is, it is not always taking a long time, but one or two hours would be adequate depends on what will be learned and how to learn it.

CONCLUSION

Prambanan Museum had varied objects in its collection that can be used as media and source of history learning. However, not all lecturers of history of PGRI STKIP Sidoarjo understood about existence of Prambanan museum. There were instructors who did not aware at all about the museum, some others knew it inadequately, and still other ones were quite aware of the existence of Prambanan Museum and used such collection similar to ones of the museum as media of history learning.

Collections that can be used as media and source of history learning were: (1) Shiva family (Shiva, Mahisasuramardini Durga, Ganesh, Lingga); (2) trimurti (Brahma, Vishnu and Shiva); (3) statue of Buddha (Amitabha, Awalokiteswara, Aksoby, Manjushri); (4) miniatures of Temples, namely Prambanan and Borobudur; (5) Devi Sri; (6) Reliefs. They can be used as media of learning because they are suitable with basic competence in analyzing development of traditional countries (Hindu-Buddhist kingdom) life in Indonesia. Objects that can be used as
source of learning were Shiva, Durga Mahisasuramardini, Ganesh, Brahma, Vishnu, Manjushri, Devi Sri, and Bodhisattva because annotations were available at the bottom containing information about history of related objects and they were written Indonesian and English.

Reasons that a lecturer of history did not use museum as media and source of history learning were (1) the distance from Sidoarjo to Prambanan takes time and special plans; (2) assumption of a lecturer that a learning does not need to be out of classroom, it can be adequately described in classroom; (3) fund and accommodations; (4) preparation of teaching; (5) allocation of instructional time; (6) some students work while in college.

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SAVING CHILDREN FROM THE DANGER OF VIOLENCE

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ABSTRACT
Currently child abuse is still quite high. In Indonesia, violence in schools is high, it is around 84%. There are a number of about 4296 cases of child abuse. It is highly detrimental to future generations. This paper made a descriptive based on existing findings. Based on descriptive analysis can be concluded that violence against children affects personality disorders and brain cell damage. Preventing the danger of violence to the expected level of affection should be done by parents and educators.

Keywords: danger of violence, child abuse, personality disorder

INTRODUCTION
Life is temporary, there is no immortal in this world. How can young people be saved? This notion is the attention that the life of the nation and of the Republic of Indonesia in the future should be better. While this practice of intergenerational violence, violence from parents to young people or vice versa, teacher violence against students and vice versa, violence between human beings still characterize the Indonesian nation. Can the affection is a solution of human formation to refrain from violence?

In Indonesia, child abuse is quite significant. Indonesian Child Protection Commission (Komisi Perlindungan Anak Indonesia/KPAI) stated that child abuse is increasing every year. From KPAI monitoring results from 2011 to 2014, there was a significant increase of violence in Indonesia. "In 2011, 2178 cases of violence occurred, in 2012 there are 3512 cases, 2013 there are 4311 cases, 2014 there are 5066 cases," (Davit Setiawan, Daily Publishing, Sunday, June 14, 2015). On average there are number of 4296 cases of child abuse Indonesia.

In a research conducted by Plan International and the International Center for Research on Women (ICRW), which was released earlier in March 2015 shows the astonishing facts related to violence against children in schools. There are 84% of children in Indonesia have experienced violence in school. There are 84% of children in Indonesia have experienced violence in school. The figure is higher than the trend in the region of 70%, (Nafiysul qodar, Liputan6, March 5, 2015). Therefore, prevention of violence does not arise from generation to generation becomes indispensable. Education is the main variable that is needed to cope with the violence. Education gives affection, confidence and awareness which are raised to refrain from violence. It is strongly needed.

Impacts of Personality Disorder
There are four types of violence exposed to human beings, namely: physical violence, psychological violence, verbal violence and economic violence. Treat roughly be in the form of verbal abuse and physical violence is very disturbing psychological. Economic pressures make any distress in children makes child psychology disturbed. Child labor, school fees that are not reasonable, burdensome the child is also the economic violence that disturb the psychology of children.
As the Desni (2016) states that "The worst impact occurs is when the child will think that he got rough treatment as a form of affection which causes when he grows he will always want to do the rough so that he was pleased, even to the extent of personality disorder". We want this generation to have normal personality, so that they can live a normal anyway. When personality is not good, would harm themselves or harm others.

If personality is not good (unsafe action), it will be injurious behavior they become and even cause accidents. Children who unsafe action that need to be given special treatment in education. Children who unsafe action when they are with other children is likely learn to prejudice (annoying) at her friends.

Impact Damage Brain Cells

Brain cells are nerve cells. Nerve cells are cells that cannot regenerate, meaning that if they die then it can no longer be produced by the body. There are two types of cell death, ie apoptosis and necrosis. Apoptosis is defined as programmed cell death, which occurs very systematically. Necrosis is not programmed cell death, which occurred in a pathogenic condition or deficiency. So, the brain cell death due to violence is a necrotic cell death.

Lise Gliot quoted CB Blogger (2014) states that "in every head of a child, there are more than 10 trillion brain cells that are ready to grow. One pinch or punch is capable of killing more than 10 billion brain cells at once. One growl or invective is able to kill more than 1 billion brain cells at once. Instead one compliment or a hug will be able to build more intelligence than 10 trillion brain cells that moment ". If the brain cells experiences unprogrammed death (necrosis), it may result in weakness of memory ability of the brain, and further weakening of intelligence.

Affection Education Approach

Education is expected to cause affection feel protected, comfortable feeling, not feeling afraid, and feeling accompanied in learning. Education with tenderness and will be keeping a sense that a student teacher raises moral bonds, confidence and awareness of the normative act. At the rate of formation of consciousness that humans feel deeds of life and this life is controlled by the Creator.

In teaching and learning in the school there was a process that is the interaction between teachers and students, students with students in case of group learning activities. In such interactions will occur a learning process, learning is generally defined as a process that brings together the cognitive, emotional, and environmental influence and experience to acquire, improve, or make changes to the knowledge of, skills, values, and worldviews (Illeris, 2000; Ormorod, 1995; quoted Akhmad Solihin, 2016).

There are three main categories or philosophical framework of the theories of learning, namely: behaviorism learning theory, learning theory cognitivism, and constructivism learning theory. Behaviorism learning theory focuses only on observable aspects of learning objective. Cognitive theories look beyond behavior to explain brain-based learning. And, the constructivist view of learning as a process in which learners actively build or construct new ideas or concepts. Construction constructive means, in the context of the philosophy of education can be interpreted Constructivism is an effort to build the arrangement of modern civilized life.

Constructivism learning theory is closer to education affection. Knowledge is not a set of facts, concepts or rules that are ready to take and remember. Man must construct knowledge and give meaning through real experience. With the theory of constructivism students can think to solve the problem, look for ideas and make
decisions. Students will be better understood because they were directly involved in developing new knowledge, they will be more knowledgeable and able to apply in all situations. In addition, students engage directly with active, they will remember longer concept, even more raises an awareness that must be implemented in behavior.

CONCLUSION
Based on descriptive analysis above it can be concluded that violence against children affects personality disorders and brain cell damage. To mecegah of the danger of violence, education affection expected to be done by parents and educators. Education affection that comes down to the philosophy of constructivism learning theory is more relevant choices.

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THE PILARS OF IMPROVING EDUCATION QUALITY IN PRIMARY EDUCATION

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ABSTRACT
Improving the quality of education is really important started in primary education. The purpose of this paper to describe an effort for improving the education quality in primary school. This writing method is based on literature study and studying about researches finding. The results of this study show that: (1) to improve the education quality in Indonesia, there should be a national assessment, (2) with using a national assessment then it’s possible to take a comprehensive policies, (3) improving the quality of education starts from LPTK, including the patterns of recruitment prospective teachers, improving the quality of education personnel continuously, (4) increasing national education budget, (5) provision of facilities and infrastructures (including a laboratory), (6) giving a block grant for outstanding outstanding school, and 7) participation from stakeholders who care about education. Based on the results of this study put forward several advices as follows: (1) the Indonesian government (Kemenristekdikti and Kemendikbud) need a set up a commission to improve the quality of education, (2) project a national assessment of education (PPNP) with the entire area of education which needs to be doing, and (3) its needed for published educational policies need to provide access for underprivileged learners and achievers.

Keywords: the pillars of improving, education quality, primary education.

INTRODUCTION
One of the problems of education faced by Indonesia is the low quality of education at all levels and units of education, especially primary and secondary education (MONE, 2000). The issue of quality of education, appears to have been very crucial in a period of time long enough. The government continues to make efforts to improve the quality of education.

Improving the quality of education was closely linked to improving the quality of human resources. Meanwhile, the ability to compete to be a very strategic instrument, when the Indonesian nation is faced by regional and international phenomenon that requires is a quality of human resource development and has strong competitiveness. As we know, Indonesia and the ASEAN countries opened a regional free trade among ASEAN countries. ASEAN Economic Community (AEC) or referred to under the ASEAN Economic Community (AEC) which has been implemented by the end of 2015. The program was created with the aim to improve the welfare and economic stability of society in ASEAN countries. AEC Objectives set out in five parts, namely to realize the free flow of goods, services, investment, capital and skilled labor.

Two priority sectors in the MEA is the industrial and services sectors. There are seven sectors consisting of industrial goods on agricultural products, fisheries, electronics, textiles, rubber, automotive and wood. As for the services sector, there are five sectors, namely air transport, tourism, logistics, healthcare, and e-commerce. These five sectors are freely traded across borders. Liberalization of trade in services set professional workforce and manufacturing workers. For professionals, there are five categories agreed started to operate freely in 2015, i.e nurses, general practitioners, dentists, accountants, and engineers. Professionals and workers who cross national borders must meet the standards set out in the ASEAN. AEC is expected to
improve the competitiveness of Southeast Asian societies through the development of a regional market and a single production base. Facing the competitiveness of the above, then inevitably Indonesia will have to have an agenda of how to improve the quality of human resources in order to be competitive human resources.

On the other hand, some indications show that the quality of Indonesian human resources still need to be improved. One such indication is the result of the survey Program for International Student Assessment (PISA), Indonesia was ranked 64 out of 65 state education. In addition, the UNESCO report on Education for All Global Monitoring Report Development Index (EDI) 2014 Indonesia was ranked 57 out of 115 (Coordinating PMK, 2015). Meanwhile, see the profile of Indonesian human resources per February 2014 issued by the Central Statistics Agency (BPS) showed that the average education of labor Indonesia is still dominated by primary education level down as many as 55.3 million people (46.80%) and junior high school as much as 21.1 million (17.82%). Well-educated workers just as much as 12.0 million people, including 3.1 million people (2.65%) Diploma and as many as 8.8 million people (7.49%) educated to degree.

The issue of quality of education is very complex. Because it involves a variety of related substance. According Danim (2003) the main issues SD management currently does not lie in its efficiency, but also the issue of quality, access and opportunities for improvements. Danim further study, points out the weakness of the efficiency of primary, general, and poor learning outcomes elementary school students, in particular, caused by several factors. The results of the study from the 1960s until the 1990s conducted by some experts found some conclusions. First, in the developed countries, more academic achievement is explained by factors outside the school (SES, the aspirations of families, interaction between children and parents) than school factors itself. Second, in countries developing or undeveloped, more academic learning achievement is explained by factors such schools (teachers, textbooks, teaching materials, school management, and so on) rather than by factors outside of school.

Of the various indicators are disclosed, which account for the low quality of education in terms of aspects of management education can be grouped into three factors, namely: (a) factors instrumental education system, (b) factors education management system, including the system of professional development of teachers and (c) the substance of education management factors (Mantja, 1993; 1996; 1998). While Mataheru (1988) emphasizes that one of the factors to be considered in the school in improving the quality of the increasing performance capabilities of professional educators or teachers.

The main problem in this discussion is the issue of quality of education. While the focus is limited to basic education. This article will examine how the pillars of improving the quality of education at the basic education level.

METHOD

The method used in this paper uses literature study. In addition, also presented some research findings that are relevant for comparison and reference.

RESULTS AND DISCUSSION

1. Reformulation LPTK

Increased professionalism of teachers can be started from the institution that prints the teacher, ie LPTK or FKIP. Perspective professional quality of teachers mentioned above, be a very useful material for LPTK in adjusting and presenting programs. To be able to produce teachers with adequate quality and composition, LPTK need to make careful planning of the need for teachers in the field, based on the expertise, quality, and spreading. Experience indicates that the implementation LPTK (especially private) is based more on the growing demand for social (social demand) rather than based on the real needs of the teachers. As a result, imbalances between supply and power requirements of teachers, there have been prolonged. Provisional estimates indicate that the overall LPTK produce more teachers’ specific fields of study which is already excessive. In fact, lately there are symptoms almost all studies
teachers have excess. If this imbalance is allowed to continue, the teacher education system in Indonesia will take place in a situation very inefficient.

2. Competence Intellectual Teacher

Intellectual competence is as an existing knowledge within the individual that is required to support various aspects of performance as a teacher. Intellectual competence is a formal basic education levels held by teachers. Therefore, there should be no standardization of these rules, so that educational qualifications held by teachers will determine the authority to teach in the level of education. For elementary school level is set as the Minister of Education and Culture No. 0854/0/1989 on Procurement of Primary School Teachers. The policy is based on the idea that in accordance with the demands of science and technology and people's life and basic education teacher education required PGSD of LPTK. Likewise for higher levels of schooling are also required educational qualifications of teachers are also higher than the level below it.

In addition, the number of teachers who mismatched with qualifying today is still considered not evenly distributed in the area. According to Director General of Primary Education (Education) Muhammad Hamid Kemendikbud not currently little elementary school (SD) in Indonesia shortages. The number of teacher shortage is expected to reach 112 thousand. To overcome these problems, the Ministry of Education & Culture (Kemendikbud) planned to work with governments, either provincial or district / city, in the aspect of distribution of teachers in these areas though more evenly. According to Hamid Muhammad, if the teacher management can be handled optimally, not partial, so that could be transferred to the District or the adjacent area.

Meanwhile, to improve the intellectual competence of teachers, will Kemendikbud increase of teacher qualifications through scholarships S-1 for teachers Schools. Hamid explained, the number of elementary school teachers in the state and private schools Approximately 1,850 thousand teachers. Of Reviews these, only 60 per cent of teachers who have qualified with the title of S-1, while the other 40% who do not meet the qualifications. Each year, was set up scholarships Kemendikbudfor 100 thousand prospective teachers to study in the S-1 through S-1 scholarship aid for teachers Schools. Internationally, the quality of education in Indonesia is ranked 64th out of 120 countries in all the world based on annual reports UNESCO Education for All Global Monitoring Report 2012. While based Education Development Index (Education Development Index, EDI), Indonesia was ranked the to - 69 out of 127 countries on the 2011.

3. Improved Welfare

There are two variables that are always interesting and crochet hooks with each other, namely to increase teachers' welfare and professionalism. This means that the professionalism of teachers can be increased gradually, if the welfare of teachers is also increasing. Supriyoko Ki education observer added, teachers need to improve the quality and welfare policies are real. To that, he added, the central government and local governments should be more conscientious about improving the professionalism of educators simultaneously. Education Minister MuhadjirEffendy suggested that improving the quality and minimize the education gap is one of the targets Nawacita. He explained that the government has committed to revolutionizing the character of the nation through a policy of reconstruction of the national education curriculum to ensure the quality of teachers' welfare (Republika, 2016).

4. Supervision of Education

Other instruments are no less important is the increase in the professionalism of teachers through educational supervision. Broadly speaking there are three approaches in educational supervision, namely (1) the direct approach (directive approach), (2) an indirect approach (non-directive approach), and (3) a collaborative approach (collaborative approach). The direct approach is an approach to supervision, in which the role of teachers' efforts to increase the ability of primary school principals, supervisors kindergarten / elementary school, and the other coaches is greater than the role of the teacher concerned. Indirect approach is an
approach to supervision, in which in order to improve the ability of teachers role of the
principal, superintendent TK / SD, and other coaches are smaller than the role of the teacher
concerned. The collaborative approach is an approach to supervision, in which in order to
improve the ability of teachers role of the principal, superintendent TK / SD, and other coaches
as big as the role of the teacher concerned.

The use of such an approach tailored to the characteristics of the two teachers who will
be supervision, namely the level of abstraction of teachers (level of abstraction teacher) and the
level of commitment of teachers (level of teacher commitment). Southwestern teacher
abstraction can be high, medium, and bias is also low. Similarly, the commitment of teachers
biased high, medium, and low. Supervision approach used must be adjusted to the height of the
low power of abstraction and commitment of teachers supervised. Based on the power of
abstraction and commitment of teachers, can be classified into four as follows: (1) the teacher
who has the power of abstraction and low commitment should be supervised by a direct
approach, (2) the teacher who has the power of abstraction which is low, but the commitment is
high, should be supervised by collaborative approach, (3) the teacher who has the power of
abstraction is high but low commitment, should be supervised by a collaborative approach, and
(4) the teacher who has the power of abstraction and commitment should be supervised by an
indirect approach. (Bafadal, 2003).

There are available a number of engineering supervision is deemed beneficial to
stimulate and direct the attention of teachers to curriculum and instruction, to identify issues
related to teaching and learning, and to analyze the conditions that surround teaching and
learning. Some of the techniques professional development that can be used by principals and
school supervisors to improve the process and learning outcomes include: classroom visits, (2) a
private meeting, (3) The meetings of the board of teachers, (4) upgrading, (5) use of the model
teacher, (6) the issuance of a professional bulletin, (7) meeting in working groups, and so forth

5. Schools Having a Quality Culture

School is the main unit of the management of the educational process. School-based
management system as a form of education reform is intended to improve the quality culture. According Sagala (2007) is said to grade school when school achievement, particularly the
achievement of learners demonstrate high achievement in (1) academic achievement which
grades and the passing score meets the required standards; (2) have the values of honesty, piety,
modesty, and able to appreciate cultural values; and (3) have a high responsibility and capability
embodied in accordance with the basic science skills received in school.

In concept Based Quality Improvement Management School (MPMBS), there are
indicators that can be used as benchmarks in a process MPMBS, among others: (1) the
effectiveness of the learning process rather than simply a transfer of knowledge (transfer of
knowledge) or remember and master the knowledge of what taught but rather emphasizes the
internalization develop aspects of cognitive, affective, psychomotor and independence; (2)
strong principal leadership, is one factor that can encourage schools to realize the vision,
motion target destination through a program implemented in a planned, gradual, creativity,
novation, effective and has the managerial ability; (3) The effective management of
educational personnel; teacher is one factor that is positioned at a school, are required to have
the creativity and tenacity in managing the learning process, to make learners active, creative
through competency-based curriculum development. Education personnel as waiters technical
education able to respond to the critical issues of education that the school was able to compete
in terms of quality; (4) The school has a culture of quality. All residents of the school based on
that professionalism in their respective fields in accordance with the functions and roles; (5) The
school has a compact teamwork, intelligent, and dynamic; togetherness is a characteristic of the
school, because the output level collective result of the school not the result of individual
citizens become a critical requirement for obtaining competitive quality; (6) the school has self-
reliance; The schools have the capability and work optimally by not always rely on superior
user must have the resources and potential and who are competent in their respective fields, (7)
the participation of the school and community. Linkage and involvement in high school should
be based on a sense of belonging and a sense of responsibility through the loyalty and dedication as stakeholders; (8) schools have transparency. In the management of the school, a characteristic which is indicated in the decision making of unemployment and changes to improve the management of quality on an ongoing basis; (9) schools have the willingness to change (change management). Change is absolutely the case, because the principle is the transience of life. Change is a significant improvement for a better positive developments in the future to improve the quality of education is responsive and anticipatory as necessary; (10) the school evaluates continuous improvement, and is a process improvement in the overall quality improvement, including organizational structure, responsibilities, procedures, processes and resources; (11) school accountability sustainability. Sustainability, human resources development, diversification of sources of funds, ownership of assets that drive their own income including the school's existence; and (12) output to graduate school emphasis is independent and "MASAGI" which qualifies the work (qualified) spiritual and bodily health, morals, remind, love each other and love each other (Sagala, 2007).

In addition, from the aspects of educational inputs, the concept MPMBS, school quality can also be measured on the following elements: (1) have a quality policy, (2) the resources available and ready, (3) have expectations of high achievement, (4) focus on customers (especially students), and (5) management input.

Model to improve the quality of education can also be applied in schools. Schools can improve the quality of education by applying what is said "Schools Have a Quality Culture". Quality culture is embedded in the hearts of all people in schools, so that every behavior is always based on professionalism. Quality culture has elements, among others: (1) information quality must be used for repairs, not to judge / control person, (2) the authority should be limited responsibility, (3) the results must be followed by rewards or Punishments, (4) collaboration, synergy, not competition, should be the basis for cooperation, (5) the school community feel safe to work, (6) the atmosphere of justice (fairness) must be invested, (7) compensation should be commensurate with the value of his work; and (8) the school community feel ownership of the school. (MONE, 2000). To change your approach based quality management center into a school based quality improvement, not a one-off process, and good value (one shot and quick fix). But is a process that continues over time and involve all the parties responsible for the existence of the school.

6. Pillars of Quality Education

Arcaro (1995) create a visual model of the schools with a total quality. Schools that implement total quality is supported by five pillars, namely: (1) focus on the user, (2) participation in the total of all members, (3) measurement, (4) a commitment to change, and (5) improvement continuously. These pillars are built on beliefs and values that hold true in education. Beliefs and values are in line with the vision and mission of education (schools), the long and short term goals, as well as critical success criteria. Visual model of Arcaco can be seen in the picture below.
Basically, grade school has five characteristics, which are identified as pillars of quality depicted in figure 1 above. The pillars are based on the belief of the school such as trust, cooperation, and leadership. Quality in education asking for their commitment to the costumer satisfaction and a commitment to creating an environment that enables staff and students run the job as well as possible. However, before we develop the total quality school, we have to understand each pillar of the described above.

**CONCLUSIONS AND SUGGESTIONS**

**Conclusions**

Based on the exposure of the pillars of improving the quality of education in primary schools in the above, it can be concluded as follows: (1) indicators of the quality of education one of which is a factor of education management system, including the system of professional development of teachers, (2) the adequacy teachers as well as the fulfillment of the qualification of teachers is a major concern of the current government, (3) research findings determinant of the quality of education are teachers (qualifications, experience, etc.), (4) without ignoring the role of other important factors, the quality of teachers has been found by numerous studies as a factor the most consistent and powerful in influencing the quality of education, (5) the school is the main unit management of the educational process, in concept MPMBS, the indicators used as benchmarks, among others: (a) the effectiveness of teaching and learning is high, (b) leadership A strong school, (c) the effective management of staff, (d) the school has a culture of quality, (e) the school has the teamwork that is compact, intelligent and dynamic, (f) the school has the authority (independence), (g) participation of citizens school and community, (h) the school has a disclosure (transparency) management, (i) schools have the willingness to change (psychological and physical), (j) school evaluation and continuous improvement, (k) the school is responsive and adaptable to the needs, (l) school accountability, and (m) the school has sustainability. In addition, from the aspects of educational inputs, the concept MPMBS, school quality can also be measured on the following elements: (1) have a quality policy, (2) the resources available and ready, (3) have expectations of high achievement, (4) focus on customers (especially students), and (5) management input.

Model improving the quality of education can also be implemented in schools by applying what is said "Schools Have a Quality Culture. The quality culture consists of: (1) information quality must be used for repairs, (2) the authority should be limited responsibility, (3) the results must be followed by rewards or Punishments, (4) collaboration, synergy,
competition, should be the basis for cooperation, (5) the school community feel safe to work, (6) the atmosphere of justice (fairness) must be invested, (7) compensation should be commensurate with the value of his work; and (8) the school community feel ownership of the school.

Improving the quality of education will be achieved, if a school with a wide range of diversity given the authority to regulate and manage itself according to the environmental conditions and the needs of learners. This thinking has prompted efforts to granting extensive autonomy to the schools, to actively and dynamically work on improving the quality of education through the management of the resources owned by the school. However, in order that the process of quality improvement is maintained, there should be a nationally agreed standards to be used as indicators of the success of the quality improvement.

**Suggestion**

Based on grains conclusions above, then it can be put forward suggestions as follows: (1) to improve the professionalism of teachers, need to be started from the system of recruitment LPTK in order to attract prospective teachers who really possess the qualifications reliable, (2 ) the need to increase intellectual competence for teachers to support various aspects of performance as a teacher, (3) education supervisors need to be implemented for teachers, as one of the instruments to improve the professionalism of teachers, (4) the school needs to be cultivated in order to become a school that has a quality culture, (5) improving the quality of education as being part and parcel of the process of development of human resources, should be well planned, directed, and intensive, so as to prepare the Indonesian nation entered the era of globalization is loaded with competition, (6) should be developed awareness of member schools to care and participate actively supports programs that improve the quality of education is the responsibility of all components of society, and (7) need new thinking for the successful development of education, especially to the schools that are in the forefront in the development process of education.

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STUDENTS’ WRITING MOTIVATION OF REVIEWING JOURNAL AND THEIR USE OF BLOG (A CASE STUDY OF POST GRADUATE STUDENTS)

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ABSTRACT
Educational technology has been widely used to make an effective learning atmosphere. These phenomena have been spread rapidly in the 21st century. One of the popular educational technologies is blog. Blog is a learning tool that can be used in English Language Teaching (ELT). By blogging, students have more interest in writing, such as scientific journal, article, essay and so forth. The study is aimed to investigate the students’ motivation after reviewing journals and uploading in their blog. The design of this study is a qualitative case study using purposive sampling technique. Ten students (as case studies) from post graduate students of English Education Department of Sebelas Maret University, Indonesia. They were selected to participate in the study based on their uploaded journal review in blog. The study hypothesized that students had high writing motivation after reviewing journals. Students’ motivation was assessed through questionnaire and interview. In this study, the writer used open questionnaire and interview about their writing motivation. The finding indicated that reviewing journal was crucial for students’ writing motivation. Furthermore, it helps student to be familiar in writing activity, especially writing journal. It also has contribution to support the development of educational technology in ELT and to enhance the students’ writing capability in Indonesia.

Keywords: Students’ Writing Motivation, Blog, Case Study, Post Graduate Students, Reviewing Journal

INTRODUCTION
Educational technology has widely used to make an effective learning atmosphere. These phenomena have been spread rapidly in 21st century. The introduction of this educational technology made the teachers and the students started thinking of the potential uses, benefits, and challenges for teaching and learning process. One of popular educational technology is blog. Blogs have been described as “I, I, I, me- me- me environments” by Thorne Payne to emphasize the individual ownership of blog spaces as being very personal (Thorne Payne: 2005). Campbell identified three types of web-blog for used in the ESL classroom such as tutor web-blog, learner web-blog, and the class web-blog (Campbell: 2003).

In this case, the students mostly used learner web-blogs as their tool to express their ideas in written work related to journal review. As the learning tool, blog encouraged students’ interest in writing academic work, such as scientific journal, article, essay and so forth. Regarding with writing academic work, writing scientific journal was an advanced skill that should be mastered by post-graduate student. They could not write a good scientific journal if
they did not pay attentions to the importance of reviewing journal. By reviewing journal, they would be familiar with the organization, method, and content that existed in journals.

The use of blog in reviewing journal also played important role to enhance students’ writing motivation. This process was very crucial because it would make students accustomed to write, especially in academic writing. Furthermore, they could learn from the feedback given by blog visitors. In accordance with blog, they didn’t only learn about reviewing journals, but also gave students another chance to improve their skill in using technology.

The study was aimed to investigate the students’ motivation after reviewing journals and posting in their blog. The study explored their views about reviewing journal in relation to their motivation when the journal review was posted in their blog.

RESEARCH METHOD

The design of the study was qualitative. One of the qualitative was case study that explored particular phenomena more deeply. It also used multiple data to enrich the information from the subject of the study (Ary, et. al: 2010). Ten students from post graduate of English Education Department of Sebelas Maret University were selected to participate in this study. The use of purposive sampling technique was to ensure the strengthness of the data. Observation and open ended questionnaire were the techniques used to collect the data. The observation is intended to dig the information about journal reviews of post-graduate student that have been posted in their blog. Students’s motivation were assessed through open questionnaire.

The researchers analyzed the data based on Creswell theory. The analysis of the data were done in the following step: First, gathering the data from ten participants. Second, grouping the data by coding to generate the setting and people. Third, selecting/displaying the data to make it easier in analysis. The last, interpreting data involved interpretation or meaning of the data. In addition, the researcher interpreted by adopting the qualitative narrative inquiry framework. It was used to examine and extract information from the open ended questionnaire and observation of the selected blogs.

FINDING DISCUSSION

The 10 post graduate students as the participants consisted of 4 males and 6 females. The researcher gave the open ended questionnaire consisted of 13 questions related to the journal review, their motivation in reviewing journal, and their use of blog. In addition, the researchers observed the selected blog to capture the skill on blogging. The data from open ended questionnaire served their opinions, experiences, and obstacles and writing motivation in reviewing journal. Furthermore, the data from observation served their blogging experience of journal review.

This section dealt with data sources then discussed it to capture the finding from questionnaire and observation. Generally, almost all the students had high motivation in reviewing journal posted in their blog. They thought that blog is an innovative tool in educational work especially in academic writing. In line with Pramela Krish, blogging could increase student’s creativity and flexibility in designing their blog (Pramela, et.al: 2014)

**Defining journal review**

Most of post-graduate students had good comprehension about reviewing journal. They maintained that reviewing journal is scientific article made by researcher was functioned to give comment, suggestion, or critic to the journal. While another student S6 had different understanding. S6 stated that reviewing journal was the same with reviewing book.

**Interest in reviewing journal**

The entire students had the same interest in reviewing journal. The difference was in the level of interest. They also had familiarity with academic work because all of them ever did reviewing journal.
A half of students had high interest. It was deal with the frequency of posted journal review in blog. S2, S3, S7, S8, S10 had reviewed journal twice a week. It meant that they had higher frequency than 5 students who reviewed journal only one per two weeks.

**Advantages of reviewing journal**

The students elaborated various advantages got by reviewing journal such as getting new knowledge, building critical reading, and collecting reference for further research. Moreover, S2, S4, and S9 added that it could increase their writing skill. Based on the finding it showed that reviewing journal potentially influence students writing skill. As we know that writing is the highest skill that should be mastered by the student. They could be a great writer if they kept their reading and did more practice. It was in line with Meyers, she stated that writing is a skill including natural talent that will improve by practicing (Meyers: 2005). Moreover, Nation stated, “writing is an activity that can usefully be prepared for by work in the other skills of listening, speaking, and reading (Nation: 2009).

**Blogging and reviewing journal**

Since technology became a part of educational world, the process of teaching and learning became more interesting and challenging. It meant that technology was vitally important in teaching and learning atmosphere. One of central component in teaching and learning was academic writing. There were many fields in academic writing such as paraphrasing, summarizing, and reviewing.

In this study, the researchers concerned on reviewing journal and posting it in a blog. Blog was an innovative tool to support students in reviewing journal. By blogging, students could explore their creativity and increase their interest. For instance: posting their journals review in blog. Because of the innovation of blog, it would create meaningful learning for both, students and teachers. In line with Pramela’s statement, she said that blog played the important role as an avenue to generate constructive discussions that provide opportunities for meaningful learning (Pramela, et.al: 2014).

The use of blog in posting the journal review was vary. S3, S6, and S8 posted all their journal review in their blog. While S1, S2, S4, S5, S7, S9, and S10 posted some of their journal review in their blog.

**Writing motivation and posting journal review**

Motivation is an essential element of successful language acquisition and is a dynamic process subject to continuous flux (Dornyei, 2001). According to Noels (2001), three psychological needs had to be met in order to enhance motivation: “(1) a sense of competency achieved through seeking out and overcoming challenges; (2) autonomy; (3) relatedness—being connected to and esteemed by others belonging to a larger social whole”.

In accordance with students’ motivation in reviewing journal, they have different views. S1, S2, S3, S6, and S7 posted their journal review in blog to fulfill the assignment from lecturer. Moreover S3, S4, S5, and S8 shared useful information to others. S5 and S10 posted their journal review in blog in order to get feedback from blog visitors. S9 intended to motivate others and increased their skills in blogging.

Most of the students considered that blog was the effective tool to review journal. S8 added that it could express their ideas freely. S2 claimed that using blog is one of natural learning process. Only S8 argued that blog as media to save and share the result of journal review.

By posting journal review in blog, S3, S7, S8, S10 hoped they would get feedback from another user. It was in line with Jun, he explained that “blogs also provide learners with an authentic audience as it opens the classroom to the wider world and can involve learners in real-life language use” (Pei Jun: 2012). S2 hope that the result of journal review would be references to the next research. S5 hoped that it would be more motivated to share final written work. S9 added that by posting journal review would increase their skill in blogging.
Based on that phenomena, the researchers conclude that students had high motivation although they had various views in reviewing journals. By posting journal review, students was experienced in self-learning and practiced self-editing, and also practiced in self responding.

**Advantages and obstacles of posting journal review**

Blogging could improve language skill especially writing. Lankshear and Knobel argued that blogging “could potentially become potent pedagogical approaches to writing” (Lankshear & Knobel 2003). In addition, they pointed out that blog could contain links, commentaries, and informed analysis, and it would be read and commented by others who have same interest (Lankshear & Knobel 2003).

The entire students stated that they got many advantages by posting journal review in their blog. S6, S7, and S8 explained that suggestions and critics from blog visitors could improve their writing skill. S2, S9 and S10 had different point of view. They emphasized in blogging skill side. They thought that blogging could improve their skill. S3, S10 explained more about the efficiency of blogging. Blog could save their journal review easily and simply as source for further research. In psychological side, S4 felt satisfied and confident when finishing journal review and posting in blog. The previous study was also found that blogging could improve the level of confidence (Pramela et.al: 2014).

Writing in blog is not as simply as writing in paper. There are some obstacles that would be appeared if the user did not pay attention in the requirement of using blog. Blogging required the user to have good connectivity of internet. Internet is a vital component of blogging. It would be a big obstacle if the connection is very limited.

This obstacle was also faced by post-graduate student when they posted journal in their blog. It was strengthen by previous research that “In terms of problems related to blogging, learners faced the most problems in uploading materials to their blog. Some of the reasons noted for this included the slow speed of connection” (Jun: 2012).

The obstacles that faced by the major students were internet connections and wifi signal (S2, S9, and S10). One student faced internal obstacles such as less motivation in reviewing journal (S7). It is contrast with S9 who considered the internal obstacle could be a motivation to be a critical thinker. Another obstacle was refers to the process of reviewing journal. They got difficulty in comprehending the main point of the journals. Only one student did not have any obstacle.

Furthermore, the researcher also observed students’ blog based on the year of creating, content, blogger level, and design in order to dig supporting information. The following table showed the finding of observation.

<table>
<thead>
<tr>
<th>Blog Aspect</th>
<th>Students’ Code</th>
<th>Create</th>
<th>Content</th>
<th>Blogger Level</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>2016</td>
<td>Journal review</td>
<td>Beginner</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>2015</td>
<td>Journal review, article</td>
<td>intermediate</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>2013</td>
<td>Journal review, journal diary, poem</td>
<td>Intermediate</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>2008</td>
<td>Journal review, journal diary</td>
<td>Advanced</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td>2015</td>
<td>Journal review, text</td>
<td>Intermediate</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S6</td>
<td>2016</td>
<td>Journal review</td>
<td>Beginner</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>S7</td>
<td>2012</td>
<td>No content</td>
<td>Beginner</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S8</td>
<td>2016</td>
<td>Journal review, English Education article</td>
<td>Advanced</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>S9</td>
<td>2013</td>
<td>Journal review, English Education article</td>
<td>Advanced</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td>S10</td>
<td>2014</td>
<td>Journal review, English Education article</td>
<td>Advanced</td>
<td>Good</td>
<td></td>
</tr>
</tbody>
</table>
The findings of the blogs observation were as follow:

a. There were three students who created journal in 2016; they were S1, S6 and S8. While the others created in 2008 - 2015.

b. Based on the content, the major of the students posted journal review, while S7 did not post anything yet. S2, S3, S4, S5, S8, S9, S10 had various written works and their blogs. They did not only post about journal review but also poem, text, book, their story about daily life, and all about English education.

c. There were 4 students had good design in their blog (S4, S6, S8, and S10)

d. The level of the blogger was divided into 3 levels; beginner, intermediate, and advanced. It can be concluded that students classified as the beginner are S1, S2, S5, S6, S7.

Based on the finding above, it can be concluded that most of student are familiar with blogging activity. The major student had created blog since 2 years ago. It means that they had many experiences in blogging. The content of the blogs were vary. They not only posted their journal review but also posted other contents such as article, book, journal diary, poem, and so on. After analyzing about the content and the design, the major students were in intermediate up to advanced blogger level.

CONCLUSION
On the whole, the major participant of this study had high writing motivation after reviewing journal and posting it in blog. It can be seen from students’ views toward the advantages, students’ interest, students’ frequency of posting journal review in blog, and the level of blogger. It was in line with Lankshear and Knobel’s argument; they said that blogging “could potentially become potent pedagogical approaches to writing” (Lankshear & Knobel 2003)

In order to ensure the utility of blog in educational world, the researchers suggested that all the elements of education need to identify the appropriate technology applied to higher education class. It was important to emphasize the technology that can be used in enhancing students’ writing motivation. Hopefully, It could contribute to support the development of educational technology in learning process and to enhance the students’ writing capability in Indonesia.

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ABSTRACT

Language is the main tool to make interpersonal communication in the society. The aim of this study was to describe interference forms in form of regional languages into Indonesian language that is used in the formal communication of Indonesian language learning. Using the qualitative method, the first step was to make a research by using of a written-record technique, making data transcription, collecting data according to types of interference, analyzing interference forms as well as elucidating contributing factors of interference. The results show that there were some students who still interfered Indonesian language into their regional languages in the formal communication of Indonesian language learning. Language interference in this study is classified into three investigations – Phonology, Morphology, and Lexical. The interference in the formal communication were caused by several factors; background, intimacy and prestige made by a speaker. The background factors of regional language interference into Indonesian language in the Indonesian language learning are understanding of second language, understanding of structure, verb composition, mastery of vocabulary, and inappropriateness in words chosen.

Keywords: Interference, Indonesian language, discussion, learning

INTRODUCTION

The event of communication is always associated with two contexts, namely the language context and cultural context. Language context in this case leads to the context of speech or context of situation, which may include aspects of participant identity, time and place of communication event, topics of speech, and the purpose of speech. This cultural context implies that every language users in organizing social interaction or communication is always patterned by its culture. Cultural context is the context of a relatively general in the language communities (Levinson, 2000).

Language is a set of oral arbitrary sound and it has meaning. Language has a main function, namely as a means of communication. When a person communicates, he or she cannot be separated from the existence of languages, users, and its usages. What kind of language that will be chosen, certainly it will be related to who is talking to whom to speak, what to say, and where to speak. In order for the purpose of communication is reached, the use of language should consider the speaking strategy. By using the speaking strategy, the purpose of communication is likely to be achieved. This is understandable because the narrative strategy strongly consider the context of speech, with whom, when, and what kind of speech situation is disclosed.

The resulted communication process can be in form of spoken communication or written communication. Each communication that uses language, both spoken and written, must have a goal that would be submitted to the listener or reader. The created communication uses language tailored to the needs and integrity of information in such way that is easily digested and understood. This is emphasized in the written language existing in the community, either in the form of books or other forms.

Language skills in learning of Indonesian language is divided into four aspects, namely listening skill, speaking skill, reading skill, and writing skill. Those four skills are interrelated to each
other. Whereas in the implementation of language learning should integrate activities to observe, ask, explore, associate and communicate.

RESEARCH METHODS
The approach used in this research is qualitative descriptive. This qualitative study was conducted to describe the findings in the field on the forms of interference in the form of local languages into Indonesian language that is used in formal communication. The data obtained by a converse-involve-observe technique. The collected data were analysed with an intra-lingual matching method and a compare-relate technique that equates and differentiates forms of analysed interference. Qualitative descriptive research means that the results of research in the field are noted and recorded, certainly in accordance with their title, and then they are accurately described so that readers or enthusiasts of language can comprehend clearly. The strategy for this study is case study because the study site at only one place, and as a result, this study is a research with a single case strategy. Because of problems and focuses of the research had been emphasized, more specific strategy had been made called as embedded case study research (Sutoyo, 2002 :183). It means that, this study is a case study on student discussion during the learning process.

DISCUSSION
Role and Variation of Language
Language has three (3) functions, namely communicative, expressive, and descriptive functions. First, communicative function means that a language has function as a means to communicate. Second, expressive function means that a language has function as a means of testifying about the fact of ourselves delivering to other persons. Third, descriptive function means that a language has function enabling creating knowledge about something. These three things can be realized in form of oral speech and written language.

Indonesian language should be uttered in good and correct form. Good means that it ought to be adapted to the circumstances and partner of speaking. Correct means that the language must be delivered in accordance with the rules of the official language and according to the applicable rules. Thus, in uttering of a language, it is not only based on the forms of language but must also it must address aspects of decency and principles of cooperation. Leech (1993) explains that the principle of cooperation is required to facilitate explaining the relationship between meaning and effort; such explanation is very adequate, especially to solve the problems that arise in the semantics of truth-based approach. But the principle of cooperation cannot explain the human behavior that often use indirect means to convey what they mean; and the relationship between meaning and effort in the types of non-declarative sentences. Thus, in this context, courtesy plays an important role.

Language variation is one of the strategies used by speakers to convey ideas and concepts. Language variation can be derived from the local language, national language, and language that is being learned, second or foreign language or even mother tongue language (Muhtar Hayuni, 2001). Variations in usage of language is usually also influenced by situation, condition of the speaker, place, time and topic of discussion. The same thing also expressed by Fishman (1976: 15) who states "who speaks what language to whom and when". It means who speak, in what language, when the language is used, whether the language is formal or informal, for example: in offices, shops, buses, tourism places, and in educational environment. That statement is related to this study which took environmental education as a research setting. It is because in an environment of education, especially in the process of learning of a second language, it not only uses the second language, but also still affected with the existing structure of the first mastered language.
**Language Interference Phenomenon in the Learning**

Interference is understood as an aberration that occurs in bilingualism in the phase of a second language learning. The interference also arises due to the dominance of the system of first language that affects the use of a second language in the event of communication, emotion, sensibility, and attitude of the speaker. The event of language contact that occurs will not cause interference as long as the existing language system in the first language has similarities with the language system in the second language. However, in case of system differences between the first and second language, there will be chaos causing deviations or errors that known as *interference*.

The term interference was first used by the Weinreich (1968: 1) to show the change in the language system in relation to the contiguity of the language with elements of other languages made by bilingual speakers. The bilingual speaker is a speaker who uses two languages interchangeably, whereas the multilingual speaker is a speaker who can use many languages interchangeably. Event of interference occurs in bilingual speech of a bilingual speaker as his ability to speak in another language.

Interference can generally be interpreted as mixing or mingling in the field of language. This mingling is a mixture of two languages or the interplay between the two languages. This was stated by Pramoedya (2006: 27) who states that the interference came from the English language, which means interference, violation, and obstruction.

Based on the description of understanding about the interference above, this study will refer to the opinion of Robert Lado (in Abdul Hayi, et al., 1985: 8) saying that the interference can be regarded as the difficulties experienced by a speaker that arise in the process of a second language learning. The same opinion also expressed by Nababan (in Samino, 2002: 36) who said that the interference in addition to productive and receptive interferences, there are still another type of interference, namely performance interference and systemic interference. Performance interference often occurs in a bilingual speaker who is learning a second language. Therefore, this deviation phenomenon called as learning interference. This event also still undergoes changes and developments, called as development interference.

Regional or local languages that are included in the speech done by students in Indonesian language learning in the classroom generally occur spontaneously. It is characterized by a process of communication among students that actually it is not designed as sentence speech that must use the local languages. However, in reality, this kind of speech with local languages is the one that they actually comprehend. Thus, the occurring interference is due to the habit of using of the local language spoken in everyday life, so that it influences the process of formal communication in the classroom during the learning of Indonesian language.

There are three elements in the process of interference, namely: source language or donor language, the language or absorbent or recipient language, and derivative element. In the event of language contact, there may be that in the event, a language is the donor language, while in another event the language is the recipient language that is identical to a mutual absorption event which is a common occurrence in a contact of languages.

Interference can occur in all components of language. The cause of interference depends on the ability of the speaker to use a particular language so that he will be influenced by other languages. Based on its field, Weinreich (in Markhamah 2000:20) divides the interference into four types, namely: (1) phonology interference, (2) morphology interference, and (3) syntax interference.

**Interference Phenomenon in Learning**

The phenomenon of interference can occur in the event of speech at any place including in the learning activities. Learning in a classroom is a core event in the educational activities. It involves several individuals who communicate and discuss a particular topic. In the communication activity, interference often occurs done by the participants of discussion; in this case, they are students. Thus, the event will result an event of bilingualism in the learning process.

Bilingualism is development of two languages on speakers. People who can use two languages interchangeably called as bilingual speakers (Weinreich, 1953). Bilingual speaker is a...
person who can speak fluently interchangeably in two or more languages (Tarin, 2009: 5). It is certainly different from the understanding of bilingualism in relative meaning. This relativity occurs caused by restriction on arbitrary bilingualism and can hardly be precisely determined. Early bilingualism defined as the ability to use two languages equally well by a speaker, but this opinion is increasingly unpopular because there is no basis of criteria for determining the extent to which a speaker can use languages equally well, thus it is difficult to measure and hardly to do. Here are some examples of interference that are frequently used by students when discussing the process of Indonesian language learning.

Examples of Phonological Interference
A “Menurut saya, bahasa Indonesia merupakan alat komunikasi bagi manusia dan selalu digunakan dalam kehidupan sehari-hari.”

“In my opinion, the Indonesian language is a communication tool for humans and is always used in everyday life.”

B “Bahasa adalah sarana komunikasi yang berguna untuk memudahkan dan mengatur pembicaraan dengan orang lain.”

“Language is a useful means of communication to facilitate and organize the conversation with other people.”

C “Menurut pendapat saya, secara garis besar, bahasa merupakan seperangkat bunyi yang digunakan sebagai sarana komunikasi.”

“In my opinion, in outline, a language is a set of sounds that are used as a means of communication.”

D “Saya setuju dengan pendapat Vroni Guterres bahwa bahasa Indonesia memiliki sifat yang konvensional.”

“I agree with the opinion of Vroni Guterres that the Indonesian language has a conventional nature.”

E “Selain itu, bahasa Indonesia juga memiliki sifat yang khas yakni arbitrer. Yang Artinya tidak ada hubungan langsung yang spesifik antara benda yang ditunjuk dengan penamaannya.”

“In addition, the Indonesian language also has a distinctive trait that is arbitrary, which means that there is no specific and direct relationship between the designated object with its naming.”

In the above quotation/transcript, there are three words that experience phonology interference, namely pronunciation of the words of “slalu” (always), “ngatur” (organize) and seperangkat (“a set of”). In this case, the standard and correct form are “selalu” (always), “mengatur” (organize), and “seperangkat” (a set of). Then, the above quoted conversation also there are some words spoken by students that are not in accordance with the standard rules of pronunciation in Indonesian language. The correct pronunciation of those words are “setuju” (agree), “konvensional” (conventional), “arbitrer” (arbitrary), and “spesifik” (specific).

Examples of Morphology Interference
A “Bahasa Indonesia kesannya mudah tetapi jika dipelajari lebih jauh maka akan semakin kompleks.”

“Indonesian language sounded so easy but if we study it further, it will be increasingly complex.”

B “Bahkan, masyarakat sering menanyai mahasiswa tentang hakikat dan alas an mengapa mempelajari bahasa Indonesia.”

The 8th International Conference on Educational Technology of Adi Buana (ICETA 8)
“In fact, people often ask students about the nature and the reasons why they study Indonesian language.”

C

“Sayangnya, banyak orang yang masih menganggap bahwa bahasa Indonesia adalah bahasa yang ketinggalan dibandingkan dengan bahasa, Inggris, China, dan Korea.”

“Unfortunately, many people still consider that Indonesian language is an outdated language compared to other languages, such as English, Chinese, and Korean.”

In the above quotation/transcript, there are morphological form of interference on the words of “kesannya” (sounded), “menanyai” (question), and “ketinggalan” (out-dated) is still affected by the everyday spoken language, especially the Javanese language. The standard words to replace the three words are “terkesan” (impressed), “menanyakan” (ask), and “tertinggal” (out-dated).

3.5. Examples of Syntax Interference

“Dalam kegiatan komunikasi sehari-hari, bahasa Indonesia yang digunakan adalah bahasa Indonesia versi lisan. Seperti apa yang telah disampaikan oleh Mbak Iko Manalu dan Mas Yovantinus tadi bahwa bahasa lisan memang memiliki porsi dan posisi yang khusus dalam komunikasi sehari-hari.”

“In the course of everyday communication, the used Indonesian language is spoken version of Indonesian language. As what has been delivered by Miss Iko Manalu and Bro Yovantinus earlier that spoken language is indeed has its special share and position in everyday communication.”

“It would also mean that the Indonesian language that has specific and different rules and has its own regulations.”

In the above transcript quotation (number 9 and 10) there are syntactic forms of interference which speakers incorporate word “Mbak” (Miss) and “Mas” (Bro) on the transcript (9) that comes from Javanese language. The intended usage of “Mas” (Bro) and “Mbak” (Sister) is an expression of respect to towards the partner of conversation. Then, in the transcript (10) the speaker enters the word of “itu” (that) and “sendiri” (itself) that are taken from construct sentence model of Javanese language. The word of “that” (itu) and “sendiri” (itself) will not actually change the meaning if the two words are omitted.

Causing Factors of Interference

In this case study, a factor that influences the interference of regional languages into Indonesian language that done by students in the learning process is linguistic factor. This linguistic factors includes components of language, namely phonology, morphology, and syntax. Based on the findings in this study, linguistic factors potentially cause interference of regional language into the use of Indonesian language in the learning are: understanding of second language, understanding of structure or grammar, use of verbs, mastery of vocabulary, errors in the choice of words when expressing ideas and concepts in learning process.

First, understanding of the second language in this context is understanding of Indonesian language deeply will help a person to be a good bilingual speaker. That is, if one understands the ins and outs of the language that is being studied both internally and externally,
it will be easier for him to use this language to communicate both in oral language and written language.

Second, the structure of language includes how to assemble phrases, clauses, and sentences to be a good and true discourse in the grammar of the language. It has been known well that the structure of a language will be different from the structure of another language, though occasionally similarities are found between the two.

Third, the composition of a proper verb in Indonesian language must be adapted to the form of verb and the word base because it will change if it obtains derivation. It will be an interference of a language when forming of verb receives derivation from regional languages, such as Javanese language interference into Indonesian language on words of “kejatuan” (fallen) and “ketabrak” (hit by).

Fourth, mastery of vocabulary is supporting factor in language skills. Limitation in vocabulary also affects conversational skills. Speaking begins with making a short sentence, later developed into a simple utterance and eventually became a thought which contains ideas and concepts. In the process of speaking, an idea requires configuration between proficiency in speaking related to the structure and mastery of vocabulary and the ability of expressing ideas or thoughts to form unity of a good idea.

Fifth, other factor is a mistake in the wording. This can cause chaos of meaning. That is, when a student expresses ideas and thoughts sometimes chooses not inappropriate diction. In other words, the revealed sentence is often different from what is intended so that the listener has trouble in understanding what the speaker means and has to examine meaning of the sentence.

Solution to Prevent Interference

Interference occurrence is indeed a problem that is difficult to remove, even some linguists claimed that interference cannot be removed because it will always happen when a speaker learning a second language or foreign language. The elements in the first language directly and indirectly will be brought into the use of the second language. In education, it is closely related to the process of language learning. The existence of interference is also referred to as a serious problem that must be followed up as soon as possible even though it also occurs naturally, but a solution must be found to overcome it. Therefore, efforts to reduce and may anticipate interference will be described in the following discussion.

First, in the case of discussion process that performed by students, the role of lecturer of Indonesian language as a facilitator and a language filter is really needed. Particularly, when language interference occurs in an atmosphere of learning in the classroom, a lecturer can remind and correct these errors and provide explanations to students about what must be done at the time of discussion. Lecturers should be more concerned about speaking skills by developing better new methods. Lecturers are also expected to be more open in providing extra time on each opportunity to discuss any difficulties concerning the usage of Indonesian language in formal situations.

Second, students should be more aware and sensitive to mistakes in speaking. The awareness of students about the interference is very important to address this mistakes. In this case, students are expected to be aware of mistakes they make, so that they will be more motivated to learn more. In addition, students also are expected to frequently practice their speaking skills in formal situations according to standard rules.

Third, students must be willing and able to improve their attitudes in using of language, especially a correct and standard Indonesian language. Anderson (in Sumarsono, 2004: 363) explains the language attitude as a belief system that is relatively long term in nature partly on specific languages, concerning language object that provides a tendency for a person to react in a certain way or with a chosen method. A positive attitude towards a language is a major contribution to the success of the language learning (Sumarsono, 2004: 363). Language attitude can also be seen from the tendency of a person in using of a particular language politely, carefully, with precise choice of words, and grammar in accordance with the rules and norms applicable in a particular language.
CONCLUSION
Interference as one of fields of sociolinguistics occurs due to the use of a second language in bilingual and multilingual societies. Transfer from the first language to the second language or vice versa that tends to cause adverse or disturbing impacts called as interference. Language interference can occur at every level of a language and in every language society. Similarly in education, in the learning of a second language, it is possible that interference caused by contiguity of two languages which each of them has similarities and differences. Interference in learning is known as performance interference. Performance interference is common in those who learn a second language, so that it is called as learning interference.

Interference occurs because there is a tendency on the bilingual speaker to liken the elements that exist in other languages in contact with each other, so that confluence event occurs. It is an unintentional influence from one language to another language. The type of influence is very evident in a bilingual speaker who uses language in everyday communication. This habits affects the communication process in a formal situation, especially in learning of Indonesian language, namely the interference of regional languages into Indonesian language. Factors underlying the interference of regional languages into Indonesian language in learning: understanding about second language, understanding of language structure, verb compositions, vocabulary, and mistake in word selection.

From the above description regarding the perception of interference, it can be argued that the interference is a natural or prevalent thing in the learning process. However, interference is more likely to be harmful, can eventually lead to chaos in its use in the language system being studied. In other words, interference is a serious problem and must be resolved immediately. If interference is not immediately anticipated, it will be more disturbing for those who want to improve their proficiency in Indonesian language.
THE CAPACITY TO THINK CRITICALLY OF THE 2015 STUDENTS OF ELEMENTARY SCHOOL TEACHER EDUCATION IN TERMS OF TEST OF ACADEMIC POTENTIAL

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ABSTRACT

Students of Undergraduate Degree Program of Elementary School Teacher Education (known as PGSD) must be able to think critically in logical, creative and innovative ways. A way of thinking critically in terms of a test of academic potential (known as TPA) was associated with the basic concept of five maples that the students will receive for a semester. Research used was a quantitative research with a population of students of Diploma degree of the year 2015/2016 at University of PGRI Adi Buana Surabaya. With simple techniques random sampling one of a class of 2015 C was assigned as samples which totaled 39 students. The data collection method used was a method of documentation by means of collecting the values of TPA and the students’ learning outcomes (in the form of the final test scores). The analysis showed that there were the relationship between the capacity to think critically of the students in terms of a test of academic potential in lectures of the fundamental concept of mathematics, the fundamental concept of science, the fundamental concept of Civics Education or known as PKN, the fundamental concept of social class, and the fundamental concept of Indonesian language. This is proven by using test regression and the economic situation of significance 5% and the calculation of Ho rejected.

Keywords: Think Critically, Test of Academic Potential.

INTRODUCTION

Program an undergraduate degree PGSD was intended to produce educators professional able to develop learning at the primary school level. Hence students program an undergraduate degree PGSD must be able to think critically, logical, creative and innovative. It means a student to be capable of being searched meaning and of understanding of something, make consideration and decisions to the problem. According to Paul, Fisher and Nosich, (1993) think critically is the method think about it, substance or trouble of any kind where the thinker improve the quality of his mind with a handle in a skillful manner the structures inherent in his mind and apply standards intellectual him. It means that students critical, think must meet certain standards on clarity, relevance, and sensible. Think critically consisting of knowledge shall be a series of questions critical, the ability hurl and answer a question at the right time, use them in active (Browne & Stuart M. Keeley, 2015)

The way students critical thinking in terms of academic potential tests (TPA). Any student diploma degree will surely follow a test academic potential (TPA), this test as a reference whether potential students were acceptable or not. TPA pertaining to the ability of numerics, verbal skill, and figural. Verbal skill is capability understanding and reasoned with use of language, the ability is capability numerikal understanding and reasoned with use numbers, and the ability is capability figural understanding and reasoned with using a photo of the. TPA is a test that seeks to capture the talent and the ability of someone in the field of academic scientific (academic). The test is often connected with the brilliance of someone. TPA aims for measuring the capacity of think college student when dealing with an object word (verbal), numbers (numeric) and an image (figural), so that the result of this test can predict whether a
student will be more successful in achievement of learning in higher degrees, and smaller the possibility that they will get stressed out with the demands of the study in the lecture.

The result of the value of TPA can be used to develop a learning process in lecture or assist students individually. So that, a learning process students will be more effective and optimal for students can maximize the potential ability thought (with language, figures, or picture) in learning.

Students PGSD have to have matter field of study program an undergraduate degree PGSD especially five subjects. Learning at the primary school level now it uses themes that better known to learning thematic. Learning thematic relating to five the major subjects, which is the Indonesia, mathematics, PPKn, science and social class. The material five maple implanted in the soul of a student on the early in the semester 1 through the concept of the basis of five maple. It is meant to students course of study an undergraduate degree PGSD be educators professional able to develop learning at the primary school level. The capacity to think critical students in terms based on the results of TPA who has followed by the potential students and is associated with the basic concept of five maple that they will receive students for a semester.

**RESEARCH METHODS**

This research is research quantitative, with a population of research is a student PGSD the 2015/2016 University PGRI Adi Buana Surabaya. With using a technique simple random sampling, of the three classes by the same elected one classes the 2015 C class which consisted of 39 students.

Data collection method that is used is a method of documentation. A method of the documentation used for collecting the value of TPA and student learning outcomes. Learning outcomes obtained from the results of UAS based on the concept of five maple that is the basic concept of Indonesian language, the fundamental concept of mathematics, the fundamental concept of public schools, the fundamental concept of science, and the basic concept of social class. Research instruments used in this research is about TPA which includes the concept of numerical, verbal and abstractly (an image), besides used also about a test for five maple on integrated learning thematic.

The method of analysis of the data used in this research are the statistics inferential test linieritas use or test regression analysis simple. Data analysis use some help spss 17.0 (see calculation spss in coefficient regression full model/enter). Before undergone a linieritas, first undergone a normality.

**DISCUSSION**

In the implementation of research, researchers test data documenting student landfill PGSD force 2015 C and data results of UAS students on five subjects the basic concept. Namely; Indonesian Language, mathematics, PKN, IPA and IPS. The test demonstrates the ability to documentation landfill students include; the ability of verbal, numerical ability, and the ability of the figural. While the results of UAS courses 5 basic concept documentation to demonstrate the competence of a student during a lecture in UNIPA. The data have been obtained further analyzed so as to obtain results in the form of conclusions.

The one that was already obtained analyzed both quantitatively, the data used in this research was statistics inferential use test linieritas or test regression analysis simple. Data analysis use some help spss 17,0 (see calculation spss in coefficient regression full model/enter). Before undergone a linieritas, first undergone a normality.

The Data a Prerequisite: Test Scores of Normality UASS Students PGSD UNIPA Surabaya the 2015
Table 1. APrerequisite: Test Normality Value UASDiploma Degree Student UNIPASurabaya the 2015 C

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Kohomogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Matematika</td>
<td>.154</td>
<td>39</td>
</tr>
<tr>
<td>IPA</td>
<td>.150</td>
<td>39</td>
</tr>
<tr>
<td>PKN</td>
<td>.129</td>
<td>39</td>
</tr>
<tr>
<td>IPS</td>
<td>.197</td>
<td>39</td>
</tr>
<tr>
<td>BahasaInd</td>
<td>.098</td>
<td>39</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction

* This is a lower bound of the true significance.

Interpretation kenormalan based on data spss output
Ho: the dependent variable for berdistribusi normal
H<sub>1</sub>: the dependent variable for berdistribusi not normal.

Test normality use kolmogorof-smirnov use spss-17.
In table output kolmogorof-smirnov sig > 5%, means Ho received or assumption dependent variable berdistribusi normal accepted.

Regression Simple Test TPA to Mathematics

Table 2Test Regression Simple TPA to Mathematics

ANOVA<sup>b</sup>

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. &lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>465.642</td>
<td>1</td>
<td>465.642</td>
<td>4.463</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>3860.255</td>
<td>37</td>
<td>104.331</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4325.897</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), TesTPA
<sup>b</sup> Dependent Variable: Matematika

Regression simple test use spss-17
Ho: no relation between math scores and the landfill
H<sub>1</sub>: is no link between math scores and the landfill

Standard significance 5 %
Analysis
Significance = 0.041 = 0.04 % < 5% means Ho rejected, that is the relationship between math scores and the landfill.

This shows that there are positive test relations between grades the fundamental concept of mathematics with the TPA. Based on the results of data and an explanation on over strengthen confidence researchers that test TPA give relationships positive test to the development of think critically students and the value of college the fundamental concept of mathematics.
Regression Simple Test TPA with Science

Table 3. Regression Simple Test TPA with Science

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>730.910</td>
<td>1</td>
<td>730.910</td>
<td>8.551</td>
<td>.006</td>
</tr>
<tr>
<td>Residual</td>
<td>3162.526</td>
<td>37</td>
<td>85.474</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3893.436</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TesTPA
b. Dependent Variable: IPA

Regression simple test use spss-17
Ho: no relation between the science and value tpa
H1: is no link between the science and the landfill

Standard significance 5%
Analysis
Significance = 0.006 < 5% means Ho rejected, it means there is a relationship between the value of science and the value of the landfill.

This shows that there are positive test relations between grades the fundamental concept of IPA with the TPA. Based on the results of data and an explanation on over strengthen confidence researchers that test TPA give relationships positive test to the development of think critically students and the value of college the fundamental concept of science.

Regression Simple Test TPA with PKN

Table 4. Regression Simple Test TPA with PKN

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>188.882</td>
<td>1</td>
<td>188.882</td>
<td>4.160</td>
<td>.049</td>
</tr>
<tr>
<td>Residual</td>
<td>1680.042</td>
<td>37</td>
<td>45.407</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1868.923</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TesTPA
b. Dependent Variable: PKN

Regression simple test use spss-17
Ho: there was no connection between grades PKN and value TPA
H1: there was a correlation between grades PKN and value TPA

Standard significance 5%
Analysis
Significance = 0.049 < 5% means Ho rejected, that is the relationship between the PKN and the landfill
This shows that there are positive test relations between grades the fundamental concept of PKN with the TPA. Based on the results of data and an explanation on over strengthen confidence researchers that test TPA give relationships positive test to the development of think critically students and the value of college the fundamental concept of PKN.

**Regression Simple Test TPA with Social Class**

Table 5  Regression Simple Test TPA with Social Class

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>155.345</td>
<td>1</td>
<td>155.345</td>
<td>6.085</td>
<td>.018</td>
</tr>
<tr>
<td>Residual</td>
<td>944.552</td>
<td>37</td>
<td>25.528</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1099.897</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TesTPA  
b. Dependent Variable: IPS

**Regression simple test use spss-17**

Ho: not there was a correlation between the value of social class and value of TPA  
H1: there was a correlation between the value of social class and value of the landfill

Standard significance 5%  
Analysis  
Significance = 0.018 < 5% means Ho rejected, it means there is a relationship between the value of social class and value of the landfill.

This shows that there are positive test relations between grades the fundamental concept of social class with the TPA. Based on the results of data and an explanation on over strengthen confidence researchers that test TPA give relationships positive test to the development of think critically students and the value of college the fundamental concept of social class.

**Regression Simple Test TPA with Indonesian**

Table 6  Test Regression Simple TPA with Indonesian

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>244.923</td>
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<td>244.923</td>
<td>11.038</td>
<td>.002</td>
</tr>
<tr>
<td>Residual</td>
<td>820.975</td>
<td>37</td>
<td>22.189</td>
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<tr>
<td>Total</td>
<td>1065.897</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TesTPA  
b. Dependent Variable: BahasaIndonesia

**Regression simple test use spss-17**

Ho: no relation between the indonesian and value TPA  
Ho: is no link between the indonesian language and the landfill
Standard significance 5 %

Analysis

Significance = 0.018 < 5% means Ho rejected, that is the relationship between the Indonesian language and the landfill

This shows that there are positive test relations between grades the fundamental concept of Indonesian language with the TPA. Based on the results of data and an explanation on over strengthen confidence researchers that test TPA give relationships positive test to the development of think critically students and the value of college the fundamental concept of Indonesian language.

CONCLUSION

Based on the results of discussion in research, it can be taken conclusion as follows:

1. There are the relationship between the capacity to think critical students PGSD the 2015 in terms of a test potential academic in lecture the fundamental concept of mathematics. This is proven by significance = 0.041 = 0.04 < 5% means Ho rejected, it means there was a correlation between math scores and value TPA.
2. There are the relationship between the capacity to think critical students PGSD the 2015 in terms of a test potential academic in lecture the fundamental concept of science. This is proven by significance = 0.006 < 5% means Ho rejected, it means there was a correlation between grades IPA and value TPA.
3. There are the relationship between the capacity to think critical students PGSD the 2015 in terms of a test potential academic in lecture the fundamental concept of PKN. This is proven by significance = 0.049 < 5% means ho rejected, it means there was a correlation between grades PKN and value TPA.
4. There are the relationship between the capacity to think critical students PGSD the 2015 in terms of a test potential academic in lecture the fundamental concept of social class. This is proven by significance = 0.018 < 5% means Ho rejected, it means there was a correlation between grades social class and value TPA.
5. There are the relationship between the capacity to think critical students PGSD the 2015 in terms of a test potential academic in lecture the fundamental concept of Indonesian language. This is proven by significance = 0.018 < 5% means Ho rejected, it means there was a correlation between grades Indonesian language and value TPA.

LITERATURE

http://www.criticalthinking.org/schoolstudy.htm

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CULTURAL VALUES IN THE DRAFT FIBER DAMARWULAN

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ABSTRACT
This study aimed to assess the cultural values of the manuscripts of Serat Damar Wulan. Research on the manuscript is the research that needs special attention in order to reveal the contents in it and keep the manuscript preservation. This was done considering the number of people who do not understand the content in terms of both script and script language. Research efforts and the translation of the script is very important in addition to the script as a cultural heritage, but more important is something alternative in the value of education by providing adequate and relevant reading material. The results of this study can be beneficial and contribute to the strengthening of science, especially in the subject of old literature, philology as an auxiliary science of the humanities and produce the concept of cultural values of Serat Damar Wulan manuscript. To analyze the research problem, a descriptive qualitative method was used. The mechanical work refers to the work of philology supported some relevant theories among other theories of transliteration, translation, and value. The analysis of the value contained in the manuscript of Serat Damar Wulan i.e. cultural values. The analysis of cultural value produced findings that the manuscript of Serat Damar Wulan contained the cultural values that were noble embodied in the five categories of human beings, which is a form of cultural values in the human relationship with God, nature, other human beings, society, and themselves.

Keywords: value; culture value; and manuscripts.

INTRODUCTION
The manuscript is one of the noble of cultural heritage of our ancestors which is priceless. These manuscripts have a very large number and value. In addition, the text of which various forms and variety spread throughout Indonesia and written in different local languages and letters.

The manuscript as written relics were able to give a clearer and wider than the legacy in the form of objects (Saputra, 1997:9). Relics may be the form of inscriptions, temple, history, and manuscripts. Of all the past information, better script for the content gives more complete information. Thus, the text needs to be investigated so that people know the text in a text so that the doctrine or the information in the text can be seen and used by the younger generation. Baried (1997:4) states that the scrolls Nusantara carry exceptionally rich contents. The wealth can be demonstrated by the variety of aspects of life. Ikram (1997:51) states that the introduction and familiarity of an old script will open new horizons for development, both in language and modern.

Therefore, digging, researching, and searching for literature in the manuscript in an area in Indonesia is essentially indispensable for the creation of human beings. Research on the manuscript is important to do because the script is able to provide information on various aspects of life, knowledge, and teachings can still be used in people's lives in the present and the future.

Various attempts were made to save the manuscripts from destruction. The destruction of a manuscript is generally caused by time, weather and insects. Physical conservation efforts manuscript is accompanied by efforts to preserve the content of the text. To anticipate the extinction of the older literary works caused by the less of supporting community. Thus, the handling as well as scientific research is very necessary. It contains a variety of past information. This study revealed the actual content and meaning contained in the manuscript Serat Damar Wulan to be easily understood by the reader.
Philology particularly can be interpreted as texts and manuscripts to establish the authenticity of both form and content. Writing literary work called ancient manuscript in the society may be a historical record that describes the life of the community.

Philology recite the classic text that aims to recognize it as perfect as possible and then put them in the whole history of a nation. By finding the state of the text as before then the text can be revealed perfectly (Baried, 2007: 5). Recitation of old texts aim is to find out the form of the author's intention to set aside the errors contained in it.

Philology is a knowledge of literatures which have very wide meanings include language, literature, and culture. It said if the literature is the result of the culture of the past while understanding the culture is a group of customs, beliefs, and values that hereditary used by the public at a certain time to confront and adapt to any situation. With philological study we can know the background of the existence of a nation that is related to the way of life, beliefs, and customs of the people who have the manuscript. The texts philology in this study is the textual form of handwriting.

Manuscripts studied is valuable literary texts. This text is the text of Serat Damar Wulan written in Arabic script and Javanese. In the study of philology there is a stage called transliteration. Transliteration is also called transliteration or replacement of the type of characters with characters from other alphabets. Research efforts and the translation of the script is very important in addition to the script as a cultural heritage, but the more important thing is the alternative in the value of education by providing adequate reading material and relevant. Thus, the script of Serat Damar Wulan interests the writer to know it deeper because in addition to it there are Krucil puppet as well as research on manuscripts of Serat Damar Wulan on some pages.

The script of Serat Damar Wulan is used as material analysis with its own uniqueness to get a picture of life in his day. With this study, it can be seen the social and cultural background related to philosophy of life, beliefs, and customs in the manuscript Serat Damar Wulan. The value for humans is the foundation or motivation in behavior or actions. On the basis of the description text damarwulan Fiber very interesting to be examined in terms of cultural values. The formulation of the problem in this research is how the cultural values in texts Serat Damar Wulan Fiber? The purpose of this research is to assess the value of culture in a script of Serat Damar Wulan.

The results of this study are expected to be useful and contribute on strengthening of science, especially in the subject of older literature, philology as an additional knowledge of the humanities and produce the concept of cultural values Serat Damar Wulan manuscript. Practically, this research can be used as a reference for the reader of texts literary value; can be used as teaching material subjects old literature, especially the introduction of teaching philology and literature; and can be beneficial to the development of the science related to language, ie knowledge of nuanced language of the past especially pesisiran text.

**ITERATURE REVIEW**

**Description Script**

The condition of the manuscript and the text can be seen in the text and text description. The condition of the manuscript and the text includes paper manuscripts, size, bold text, writing in the paper layout, number of pages, number of lines, letters and the language used in the text as well as the overall state of the text and the text in detail. Mulyadi (1994:38) states that the matters to be considered in describing the manuscript includes the title of the manuscript, a storage area manuscripts, manuscript number, page size, number of pages, number of lines, long lines, letters, language, paper, stamp paper, the authors, copyists, the date of writing the script, the script circumstances, the owner of the manuscript, acquisition of manuscripts, drawings or illustrations, and the content of the manuscript.

Text is the content of the manuscript. The difference between the text and manuscripts will be clearer if there is a script that contains a younger text but has older content. Texts consist of content and form. Contents contain ideas, or the mandate to be conveyed by the author to the reader. While the form of a story or lesson contains content that is to be read and studied (Lubis, 2001:30). Furthermore, Mulyadi (1994:3) states that the text is what is contained in a
manuscript. In other words, the manuscript is the text or the content of the script while the script is a physical manifestation. A text can be written in more than one script. From the description, it can be concluded that the manuscript is a physical manifestation, while the text was the content of the manuscript.

**Theory of Value**

Dwijarkara (1966:38) defines value as the nature of a thing that causes the worth to be pursued by faith. Value is something interesting which we were looking for, fun, preferred, desirable, and good.

**Concept of Cultural Values**

Indonesian society in general have come to realize that literature has significance as a means to get to know the values, attitudes, as well as the minds of a nation or group of people (Ikram, 1997:160). Sudikan (2001:48) states that the concept of culture is used to assess the value (read: the Koran) of cultural values contained in folklore. The concept of culture is used as the assessment value is inseparable from the existence of folklore sustaining cultural values in society.

Furthermore, Koentjaraningrat (1984:123) states that the study of cultural values in oral literature is essentially an understanding referring to life in the daily community. Cultural values is the basic of problems which is very important and valuable in human life considered and believed to be something very valuable. This level is the ideas to conceive the most valuable thins in society.

Koentjaraningrat (1984: 8) says that the value of culture as one culture is the first level of ideal culture or customs. Cultural values are the most abstract layer and broader in scope. Koentjaraningrat further said that a cultural value system consists of conceptions of life in the minds of most people about the things they consider to be very valuable in life. Therefore, a cultural value system usually serves as the supreme guideline for human behavior.

Cultural values is one manifestation of the culture of the majority tora. Koentjaraningrat (1984: 82) divides the embodiment of culture into four, namely: (1) the value of culture, (2) culture system, (3) social system, (4) the set of elements of physical culture. Cultural values in society associated with the abstract concept that has been studied by individuals early in life, ie since the process of socialization as a toddler (Koentjaraningrat, 2002:13). Therefore, Geertz (2003:136) divides the cultural values associated with:

1) The man as an individual;
2) The man in relation to society;
3) The man in relation to nature;
4) The man in relation to God.

As a system of values, cultural values, according Koentjaraningrat (in Djamarnis, 1993: 2) can be classified by five categories of human relations, namely:

1) the value of culture in the human relationship with God;
2) the value of culture in the human relationship with nature;
3) cultural values in human relationships with other human beings;
4) cultural values in human relationships with the community;
5) the cultural values of mankind's relationship with itself.

The embodiment of man's relationship with God is the most fundamental relationship in the nature of human existence in the world. Values that stands out is piety, submission, and pray to God. Nature is the unity of human life wherever he is. Prominent cultural value is the value of integration and utilization of natural resources. Meanwhile, as social beings, humans can not break away from the other man. Values that stands out is the friendliness, courtesy, loyalty, honesty, and wisdom that human beings against other human beings.

Cultural values in human relationships with the community are the values associated with the interests of the community members. Cultural values that stand out in human relationships with other people are the cultural values of deliberation, patriotism, mutual assistance, adherence to customs, and justice. Cultural values of mankind's relationship with
itself related to the individual's own worldview is basically influenced by personal characteristics such as humility, honest, firm establishment, diligent, and passionate.

The concept of cultural values are used as a basis to analyze the cultural values that exist in the script of *Serat Damar Wulan*. By chanting cultural values, we will get the value of culture in a society that is contained in the script. The author will analyze the cultural values in accordance with the opinion of Koentjaraningrat.

**RESEARCH METHODS**

This study used a qualitative approach. With this method, the manuscript was studied with the aim of recognizing it as perfect-imperfect and achieve the relevant forms. The mechanical work refers to the work of philology. The reason to use the design of a qualitative approach to this study is because the aim of it is to assess the cultural values of *Serat Damar Wulan*. The study of manuscripts of *Serat Damar Wulan* has steps as follows: inventory of the manuscript; a description of the manuscript; the basics of determining the transliterated text and translation; and a summary of the manuscript.

The object of this study is the script of *Serat Damar Wulan*. The text was written in the Arabic script and Java language, descriptive prose and handwritten. The manuscript is unique since it has puppet Krucil images on multiple pages. The techniques used in the research are data collection techniques and recording documents. This stage is the first step in the study which is noted the manuscripts and manuscript inventory of *Serat Damar Wulan* text by using literature. Observations is adjusted to focus on the condition of the manuscript.

The technique used to collect data script of *Serat Damar Wulan* in the research is adapted to study literature tekstologi of conducting observations using noted techniques. The recording was made in line with the various aspects of the center of attention of researchers. From this step, the information about the condition of the manuscript and the text can be obtained: original manuscripts, manuscript form (paper or palm), language, literacy, number of pages, number of lines per page, and the text genre. The reason to choose the script of *Serat Damar Wulan* written in Javanese and Arabic is motivated by the fact that until now there is only a few people are willing to examine the manuscript of Javanese with Arabic letter.

The steps in the documentation study are as follows: examines manuscript of *Serat Damar Wulan* of and references related to topics discussed, do the transliteration of the Arabic alphabet to writing Java, do the translation from Javanese to Indonesian, and map the objects collected in accordance with a focus problem. The next stage is the technical note by reading the manuscript text of *Serat Damar Wulan* thoroughly and keep records as a tool in the recording is done with colored markers marking in accordance with each of the existing problems in the research. This is to facilitate the analyzing of each issue.

The next stage is having a transliteration. This is done since the *Serat Damar Wulan* is written in Arabic script. Transliteration is important to introduce the old texts. *Serat Damar Wulan* text which is the object of this study is written in Arabic script, it is necessary among other types of characters of the Arabic script and the Javanese language to Latin script form to facilitate the reader. Transliteration essentially copying the replacement of characters from one alphabet to another alphabet to facilitate the reader.

*Serat Damar Wulan* text which is the object of this study was written in the Java language. Thus, there should be a translation of the text in Indonesian. Fibre text translation efforts of *Serat Damar Wulan* fiber into Indonesian serves to facilitate the reader. The text of *Serat Damar Wulan* is formed in the Arabic language and the Java (Pegon) can be translated in Indonesian. Thus, the text can be read by the public easily. In terms of translating the text of *Serat Damar Wulan* are a few things to note. Given this text, namely Arabic language and Java language, then the translation is done only in the Java language (Pegon). In this case, the translation is done from the Java language texts into Indonesian.

It is on the basis that in the text of the Java language is already the translation of the Arabic text. Therefore, no longer need to do the translation of texts in Arabic to Indonesian.

Lubis (1996:75—76) describes several ways in translating, namely: (1) The literal translation is a translation by obeying the text which is translated word by word, (2) the
translation is rather free; said rather free translation if the translator was given freedom in the process of translation, but still within reasonable limits i.e. translating ideas written with not too tied up with wording for word, and (3) the translation is free; translators are free to make changes, either remove parts, add or summarizing text.

Techniques used in translating the of texts *Serat Damar Wulan* used the second way of translation techniques, somewhat freely since the text of *Serat Damar Wulan*, researchers in translating the text also consider the important meaning in accordance with the concept or the content contained on the manuscript of *Serat Damar Wulan*, translators have freedom in translating ideas and less bound by the wording of the Java language into the Indonesian language. Fibre text translation of *Serat Damar Wulan* done by translating line by line. This is done by moving the mandate or message and impression of the source language with regard to the value of fairness and smoothness of language translation. Fibre text translation efforts *Serat Damar Wulan* into Indonesian serves to assist the introduction and values contained therein to the wider community. After the text is translated, the content can be used by people.

This research data analysis techniques used descriptive analysis techniques and content analysis. Descriptive analysis is used to describe the data while the content analysis technique to express meaning. Descriptive analysis to assess the cultural values of *Serat Damar Wulan* manuscript. The contents refers to the meaning, words, pictures, symbols, ideas, or messages that can be communicated. While the text refers to something that is written in the form of books, documents or other mail.

The steps used in the analysis of data as follows. Ordering data according to research focus that is data classification and interpretation of data values in accordance with the focus of research. It is adapted to describe the condition of the manuscripts and texts as well as texts and text functions. Content analysis techniques used for data processing and emphasizes the study of the contents in accordance with the focus of research. Descriptive analysis techniques used with the aim of describing a situation objectively text in a description of the situation. This is done when the data collection takes place. Steps in data analysis is to analyze the script of *Serat Damar Wulan* consisting of text reading *Serat Damar Wulan* and describe the physical state of the script that includes: title of manuscript, manuscript number, storage script, script text, script language, type of paper, the size of the manuscript, number of pages, number of lines, paper, thick manuscript text origin, the colophon, the author or the copyist, state of the script, the content, and other records deemed necessary (Mulyadi, 1994:38). This phase facilitates the next stage.

The authors used the technique of continuous observation manuscript of *Serat Damar Wulan* and triangulation methods to check and examine the degree of confidence discovery research results with some data collection techniques for checking the validity of the data.

To check the validity of data obtained, it conducted conducted activities that refers to the opinion Sudikan (2001:83) that there are three activities carried out to check the validity and correctness of the data, namely: (1) perform triangulation, (2) conduct peer debriefing, (3) perform member check and audit trial. Triangulation is done with the following steps: (1) triangulation of data sources is done by finding the data, (2) triangulation of data collection, (3) triangulation method is done by using a variety of data collection methods (study of documentation).

Mechanical peer debriefing conducted to examine the data and test results data is checked by friends through discussion. Techniques member check is done by checking the data collected. With all three of these techniques, we check and reconsider the data that has been analyzed whether it must be checked back in. This is done in order to obtain the level of confidence in the results of research.

FINDING AND ANALYSIS: CULTURAL VALUES DRAFT OF *SERAT DAMAR WULAN*

Manuscript Description of *Serat Damar Wulan*

*Serat Damar Wulan* manuscripts written in Arabic script and the Javanese. The condition of the manuscript *Serat Damar Wulan* is yellowed paper, dirty, holes, and hardback paper is damaged, prose essay form, and has 473 pages. The manuscript is in good condition.
and the writing is clearly legible. The way to write this script is using the back and forth sheets, parallel to the writing of the placement of a sheet of paper, the space of the arrangement in the form of passage into prose. *Serat Damar Wulan* manuscript materials are plain paper without a watermark, not striped, and the situation is still good. Manuscript form rectangular and there are images of puppets Krucil. *Serat Damar Wulan* is in the form of descriptive prose with the process of making handwritten.

*Serat Damar Wulan* text content is the uprising of the duchy Blambangan King Urubisma (Minakjingga) to the queen of Majapahit (Kencanawungu). The rebellion of Minakjingga from Blambangan could be thwarted with the help of Damar Wulan. Finally the throne of the kingdom of Majapahit submitted to Damar Wulan after marrying the Queen, Kencanawungu.

**Cultural Values in manuscript Serat Serat Damar Wulan**

*Serat Damar Wulan* story as a literary genre of Java, including the famous epos in Javanese literature in East Java in general.

**Cultural Values in Human Relations with God**

**Tawakal, Patience, Hard Work as Authorized Capital to Achieve Goals and Worship**

Every human being must have ideals. In order to achieve the ideals, it requires patience, hard work, and trust. God so loves those who are patient, hardworking, and put their trust. Human patience also requires hard work and suffering for both test and trial for humans.

*Damar Wulan* figure is one example which has nature patience and trust to face life's trials. *Damar Wulan* remains patient and trust at the time he had to live with his uncle Patih Logender. He was wasted and killed by Layang Seta and Layang Kumitir. However, he remained patient and trust.

Every day *Damar Wulan* weed and kept his uncle’s horses even he had a duty to fight beat Minakjingga to Blambangan. He had lost, but with the help of Puyengan and Suhita he could eventually defeated and killed Minakjingga. However, after he returned to Majapahit, he was stopped by Layang Seta and Layang Kumitir and the head of Minakjingga as the evidence which should be sent to the Queen Kencanawungu taken by Layang Seta and Layang Kumitir and executed. With patience and trust, he was finally able to achieve its goals, which became the king of Majapahit and husband Kencanawungu king of Majapahit.

**Cultural Values in Human Relations with Other Man**

**Please-help**

Humans live in a society should help each other because essentially living in a society of mutual need among others. Helping others with the regardless of who should be helped. Even the enemies, when they are no longer hostile to us, they should be help when they need. This is as an evident from Puyengan and Suhita, Minakjingga’s wife, who helped Damar Wulan.

This can be seen when damarwulan losing the war against Minakjingga. *Damar Wulan* fainted then rescued by Puyengan and Suhita so that he could be healed and healthy again. Even Puyengan and Suhita notifying weaknesses and strengths Minakjingga to Damar Wulan i.e. Wesi Kuning (Yellow Iron) heirloom. Yellow is the mainstay Wesi heritage and strength Minakjingga. Wesi yellow stolen by Puyengan and Suhita and gave it to Damar Wulan. With the inheritance of the heirloom, *Damar Wulan* beated and killed Minakjingga.

**Keeping Promises**

*Kencanawungu* as a queen. She had guidelines and principles, “Sabda Pandita Ratu” means a king when it said or promised something to keep. Queen Kencanawungu had previously pledged whoever can beat and kill Patih Minakjingga, when a women will be a true sister, when a man will be her husband and become the king in Majapahit.

It turned out that the person who were able to defeat and kill Patih Minakjingga was *Damar Wulan*. Queen Kencanawungu finally fulfilled her promise, *Damar Wulan* became her husband and the king of the Majapahit with the title of King “Prabu Brawijaya”. In taking the
decision to make *Serat Damar Wulan* as a husband. Queen Kencanawungu became king of Majapahit. Queen Kencanawungu never looked at it in terms of *Damar Wulan*’s descent, rank, and possessions, but really fulfill her promise she had said.

**Cultural Values in Human Relations with the Public**

**Precautionary A Leader in Addressing Issues and Decide**

A leader when receiving information or reports from other people or his men must be careful to react. Such information is not immediately taken for granted, but must be verified so that, if the information or reports will be used for decision making is not fatal and harming others. A leader should not be in hurry and over and over again, in deciding an issue, thus it will not be fatal and harming others.

Such characteristics belong to Queen *Kencanawungu*. Queen *Kencanawungu* upon receiving a report from *Patih Logender* and her two children named *Layang Seta* and *Layang Kumitir* that they both had been defeated and killed Minakjingga and bring evidence *Minakjingga*’s head.

However, the Queen *Kencanawungu* was very wise and unhurried to receive these reports for granted, and did not immediately make a decision, because if she was hurry to take a decision, then *Layang Seta* and *Layang Layang Kumitir* would be the husband of Queen *Kencanawungu* and become king of Majapahit. Means will harm others, namely *Damar Wulan*, because *Damar Wulan* which beat Minakjingga.

**Cultural Values in Human Relations with Yourself**

**Women Should Not Haste Select Prospective Husband**

A woman should not be hastily to drop her choice against her husband because the husband is the spouse forever. A woman must be careful in choosing her future husband. In selecting prospective husband should not only attracted to wealth, position, or rank. The more important one is kindness, sincerity, and depraved.

It's as has been done by the Queen *Kencanawungu*, the King of Majapahit, and *Anjasmara*. She did not choose a rich future husband, serves as a king, but she chose a husband from a village who was homely and poor. Although he did not not have position and wealth but *Damar Wulan* has a noble heart, honest, and noble.

**CONCLUSION**

The analysis of cultural value found in the manuscript of *Serat Damar Wulan* has a noble cultural value embodied in the five categories of human beings, which is a form of cultural values in the relationship with God that is trust, patience, hard work as the basis of achieving the ideals and worship; a form of cultural values in human relationships with other human beings, namely mutual help and keep promises; a form of cultural values in the human relationship with the community is that prudence a leader in addressing and deciding issues; and a form of cultural values in the human relationship with yourself that women should not be hastily choose a husband.

**REFERENCES**


Biodata

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IMPLEMENTATION OF GUIDED DISCOVERY METHOD OF LECTURES TO IMPROVE BIAK PAPUA STUDENTS’ UNDERSTANDING THE MATH CONCEPT

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ABSTRACT
The problem faced was lack of understanding of Mathematics students of Biak Papua in understanding the basic concepts of mathematics in particular materials on numbers of arithmetic operations. From the observation shows that there were still many Biak students who had difficulty in teaching and solving problems of the concept of arithmetic operations. Therefore we needed a method of learning that could foster the activity of students in learning activities. One method that is able to activate the students by applying the method of guided discovery. This research is a classroom action research to carry out in two cycles. The instrument used in this study was a test sheet. The researchers used qualitative and quantitative descriptive data analysis techniques. The indicators of success of this research is characterized by increasing understanding of the basic concepts of mathematics, especially arithmetic operations on particularly cognitive aspects of Biak students. The results showed that the guided discovery method used was capable of increasing the understanding of the basic concepts of mathematics. This is evidenced by an increased understanding of the concept of Biak students in the lecture the basic concepts of elementary mathematics. The average gain of understanding the concept of Biak students in cycle 1 was 67.16 and the average in cycle 2 was 79.50. The average of increase in understanding of the concept in the first cycle and the second cycle was 12.34.

Keywords: method of guided discovery, understanding of math concepts

INTRODUCTION
Education plays an important role in preparing qualified human resources and able to compete in the development of science and technology, so that education should be carried out as well as possible to obtain maximum results. Well-managed education will produce both good quality and quantity. This can be achieved by the implementation of education precise and appropriate to achieve the learning objectives.

Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual power of religion, self-control, personality, intelligence, character, and skills needed by him, society, nation and state, (Law No. 20, 2003).

Education is the key to development of a nation. Economic development of a nation can occur in the presence of social transformation in a nation. Therefore, it takes an effort to nurture the younger generation to become future leaders with great quality. To develop the younger generation to create a quality leader become an important task for formal education and informal education. Formal education is a structured educational paths and tiered consisting of primary education, secondary education and higher education. While the non-formal education is the path of education outside formal education can be structured and tiered. (Law No. 20, 2003).

Higher education is one of formal education. Satya Wacana Christian University (UKSW) is one of formal education in Salatiga. UKSW has many major, one of the major is Elementary School Study Program (PGSD) is the basic concept of elementary mathematics. In the process of learning the basic concepts of elementary mathematics, the author found a lot of students who are still difficulties in understanding the basic concepts of arithmetic operations, this problem experienced by many students who come from Biak, Papua. Many students have
difficulty, it is because the lack methods variation in lectures the basic concepts of elementary mathematics.

Based on the results of student learning basic concepts of mathematics Biak which is still below the value of completeness. Researcher tried to apply learning to encourage students to construct new knowledge independently so that the activities of the learning process becomes more meaningful. Therefore, researchers are trying to overcome these obstacles by using guided discovery. With the use of media, students are expected to better understand the basic concepts of elementary mathematics, especially arithmetic operations.

THEORETICAL REVIEW

According Hamalik (2002: 134) guided discovery method is a procedure of teaching that emphasizes individual studies, manipulation of objects, and experimentation by the student before making generalizations until students understand a concept. Students perform discovery, while teachers guiding them in the right direction. Guidance is intended that the findings of the student are directed.

According Jolingen (1999), discovery learning is a type of learning in which students construct their own knowledge by conducting an experiment and discover a principle of the results of the experiment. (Pruwanto, 2012: 27-28). So guided discovery method is a method of learning that focuses on the activities of students in learning. Activities are enhanced in this study is a learning process in the course of the basic concepts of elementary mathematics.

In the lectures, the lecturer only acts as a guide and facilitator who directs the students to find their own concepts, procedures on material number operations. Lecturer carry out lectures by dividing students into small groups. Lecturers guide students in small groups. Lecturer direct students to find their own concepts of arithmetic operations of numbers. By using the method of guided discovery, students are expected to become more understand the basic concepts number operations. Lecturing activities no longer centered on the lecturers but also centered on the student.

Learning the discoveries can be divided into two, that is the free discovery learning or often called an open-ended discovery and Guided Discovery Learning. Guided Discovery is a learning model that invites students or encouraged to do activities so that in the end the students to find something that is expected. In practice, Guided Discovery Learning more widely adopted, because the teachers guide students will work more focused in order to achieve the goals set. However, the guidance of the teacher is not some prescriptions to be followed but only a directive on working procedures are required.

Guided learning methods able to foster interaction between lecturers and students. On the implementation of guided learning methods, students are directed to look for the results and conclusions of the math problems are discussed. The purpose of learning with guided discovery methods can help students to think critically. Guided discovery method encourages students to think for themselves so that they can find the basic concept of the material being taught. Guided discovery method is able to engage students actively in learning.

Mathematics is the result of thinking, which shows the integrity of the capacity of the mind to find the sequence and pattern of events in the world, to explain and intellectual sense of the world, and to enjoy the challenges and solving problems raised by himself (Mack J, 1994: 264-267).

According to Hamzah B. Uno (2009: 130), learning mathematics is a mental activity to understand the meaning and relationships as well as symbols, then the application in real situations. Schoenfeld (Hamzah B. Uno, 2009: 130) defines that learning mathematics is concerned with what and how to use them in making decisions to solve the problem.

According Hudoyo (1988: 6) learning is a process of two-way interaction between teachers and learners. It can be said that learning is an interplay of two activities that can determine the outcome of learning. Kemudiaan Hudoyo explained that learning as a series of events or the (events) that affect learners so that the learning process can take place easily. Learning is not just limited to the event carried out by the teacher alone, but covers all the events that may have a direct influence on the human learning process. Learning includes events
are derived by printed material, pictures, programs, television, film or a combination of these materials. Thus the function of learning not only the function of the teacher/instructor, but also the function of the source of other learning resources used by learners to learn on their own.

**RESEARCH METHODS**

This research is a class act. This study was conducted in pre-cycle, cycle 1 and cycle 2. Each cycle of four phases: planning, implementation, observation and reflection.

**RESEARCH RESULT**

The results of the study are divided into pre-cycle, cycle 1 and cycle 2. Activity on pre-cycle, lecturers give preliminary tests intended to determine the ability of a student beginning Biak. on pre-cycle attended by 31 students of Biak. From the results indicate that there is still a lot pre-cycle PGSD Biak students who have difficulty in understanding the basic concepts of arithmetic operation numbers, the concept of summation, subtraction concept, the concept of division and multiplication concepts. Then the researchers carrying out the cycle 1 and cycle 2. Differences in cycle 1 and cycle 2 is the basic concept of mathematical material SD (Elementary School). The material taught in cycle 1 is the arithmetic operation subtraction, addition, multiplication, and division. While the material in cycle 2 is the arithmetic operations mixture on addition, subtraction, multiplication and division. Each cycle of applying the method of guided discovery.

Implementation of guided discovery implemented smoothly and in accordance with the lesson plan that has been planned. Based on the results reflects all activities carried out well. Implementation of guided discovery in the lecture can be seen from the learning activities. Active activity appears from the discussion groups were conducted. Discussion group consists of 3-4 students. Students discuss numbers arithmetic operations. In discussions, each student convey information and exchange information about the number arithmetic operations. Students share knowledge within the group, so that students can draw their own conclusions. Lecturers only as a facilitator in the learning process. Lecturers only provide guidance and direction in small groups.

**DISCUSSION**

Based on the implementation of the action in three cycles above, it can be seen that there has been an increase in the understanding of concepts and learning outcomes of students before being held up action, action on the first cycle and the second cycle Such improvements can be seen in the following explanation:

<table>
<thead>
<tr>
<th>Description</th>
<th>Pre-cycle</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1696</td>
<td>2082</td>
<td>2385</td>
</tr>
<tr>
<td>Average</td>
<td>54,71</td>
<td>67,16</td>
<td>79,50</td>
</tr>
</tbody>
</table>

Based on Table 1 above, shows that the average value of 54.71 pre-cycle. The average value of cycle 1 at 67.17 and the average value of the second cycle of 79.50. This represents an increase on average by

The learning model applied by teachers, good learning model application and in accordance with the content while it will increase students' motivation resulting in increased student learning outcomes. So that teachers should be able to use the learning model that can make students more active.

Therefore this study the researchers chose a model guided discovery. The model is one of the guided discovery learning model that can improve student’s learning activeness. Students are encouraged to think for themselves, analyze themselves, so as to find a general principle based on materials or data that has been provided teachers. Through guided discovery model of guided students to discover concepts and solve problems on the material to be taught.
CONCLUSIONS AND RECOMMENDATIONS
Based on the above conclusions, the advice to the researchers made, namely: the learning of mathematics through the application of the method of guided discovery can be used as an alternative learning to improve the understanding of the basic concepts of elementary mathematics, especially in material numbers arithmetic operations, because the method of guided discovery is a method of learning that encourages students to think for themselves and directly engage students to discover concepts and general principles in mathematics. In addition, through guided discovery methods students can actively participate in learning, improve student’s problem-solving abilities and make the acquired knowledge longer impression on student’s memories.

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Biodata
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IMPLEMENTATION OF PAKEM TO IMPROVE THE ABILITY IN BEGINNER READING OF KINDERGARTEN A GROUPS

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ABSTRACT

Education is the business consciously planned to bring about an atmosphere of learning and a fun learning process. Reading skills are the basis for various fields of study. If school-age children in the beginning do not immediately have the ability to read, then they will experience a lot of difficulties in learning a variety of majors in the future classes. Therefore, children should be expected to learn to read so they can read to learn. At the early childhood and elementary school levels, the learning process in the beginning reading is not the same. The learning process is active and fun so that children do not feel burdened. In addition, with this method it can increase the motivation of students to continue to learn. The purpose of this research was to know the implementation of PAKEM in improving beginning reading skills at kindergaten Group A. The research approach used was an experimental research with pre-experimental design. The subjects in this research were Group A of kindergaten students as many as 25 students. The data collected was analyzed using T-test of the observations the overall indicator is used, the change occurred in beginning reading skills before and after using the PAKEM. So it can be inferred that the beginning reading skills development of children are affected after implementing PAKEM.

Keywords: Beginner Reading, PAKEM, Early Childhood

INTRODUCTION

Education is a planned and conscious effort to bring about an atmosphere of learning and the learning process so that learners are actively developing the potential for her to have a religious, spiritual power of self-control, personality, intelligence, morals, as well as the necessary skills themselves and society. Education in Indonesia is composed of formal education which was held in schools. The line it had a secondary education, starting from elementary education, secondary education, to higher education. While the formal education such as various courses, music courses, among others, tutoring etc. (URwww.wikipedia.org).

According to the statutes of the national education system the number 20 in 2003 (www.mahkamahinstitusi.go.id) are described further in chapter three on the principle of conducting education on article four five-paragraph mention that education organized by developing a culture of reading, writing, and numeracy for all citizens.

Reading skills are the basic for many fields of study can master. If school-age child in the beginning did not immediately have the ability to read, then he will likely experience a lot of difficulties in learning a variety of majors in the next classes. Therefore, children should be learning to read so he can read to learn (Lerner, 1989:349). Read the beginning stages generally starting since children enter grade one SD (elementary school), which at the time was about seven years old. The main goal of reading the beginning is so that the child can recognize writing as a symbol or symbol languages so that children can voice those writings (Wardani, 1995:56).

The results of the study are expected in learning reading beginning in grade level early childhood education, among others, to be able to read aloud the syllable with the proper pronunciation, read aloud a simple sentence with proper intonation and pronunciation, read smoothly a few simple sentences consisting of 3-5 words with the right intonation, as well as
reading the poetry of children consisting of 2-4 lines with the right intonation and pronunciation (Depdiknas : 2007).

Based on the above description of some authors conclude that the ability to read is not an absolute requirement that must be mastered if students want to enter primary school, but it would be nice if early students had already provided the ability to recognize letters starting from kindergarten. This is due to start from first grade elementary school students already taught some of the subjects that require reading skills. Students who have the ability from the beginning of the basic education level, then it will be better equipped to follow the lessons in the next level of education.

Knowledge about reading the beginning is crucial to give the children because by reading the beginning of them can communicate with friends or people around them. The ability to read is one of the skills that need to be developed in kindergarten, in addition to the aspect of the ability of speaking, listening and writing. The courage to speak up, ask questions and express the idea strongly support in the learning process. Need to develop the ability to read the beginning of the early (http://eprints.ums.ac.id/25320/2/BAB_I.pdf)

Homes, schools and the environment is a source of learning for children to grow and develop. Therefore the time of child development to get the optimal learning course must be accompanied by a fun way and in accordance with the characteristics of early childhood.

Early observations conducted by the author in one of the kindergartens where students are encouraged to read the beginning of the still with the conventional way. In this learning, teacher centered to students are indeed able to read but not understand about the writings or the meaning of the word. It is apparent from the 25 students, only 3 students were able to read and understand the meaning of those words and 22 students can read.

To solve the problem above, then needed an interesting learning, which can make it easier for children to develop the ability to read the beginning of the course in accordance with the principle of learning in kindergarten is a learning with playing and playing with learning. In other words teacher holds a fairly important and strategic in improving the reading skills of students.

Then learning for beginning reading skills is done with the PAKEM approach which is a learning approach that focuses on active learning, effective, creative and fun. Learning is fun for students can improve motivation to continue learning during his life (Barkley, 2010:9). Brophy (2004:4) explains that motivated the students in a class can improve enthusiasm, attention, student involvement and effort students to learn. Through the efforts of the kindergarten students are expected to have a fun learning experience, motivated to learn and continue to cause problems in the stages of learning to read next.

This is because reading is a very basic ability to learn a lot of knowledge about the world outside. In addition, the ability to read basic aspects to also become a developing other abilities (in Mulyati, 2013:1). On kindergarten reading skills, focus on reading the beginning. According to Tampubolon (in Mulyati, 2013:1) "reading early already need to be given as part of the effort to grow interest and habit of reading in children, and at the same time prepare it entering primary education". Tampubolon further (in Mulyati, 2013:2) also explains that what is meant by reading early is reading taught in hard-wired (formally) to the children of pre school. The child is taught to read early generally more advanced in school than children who had never obtained read early. 

**RESEARCH METHODS**

The research approach used is the type of research experiments with using design pre-experimental one group pretests-posttest design. In this research, there was a pre test given before treatment so that the results of the treatment can be more accurate.

Experimental research can be said a research method used to locate a particular treatment influence against the other in conditions completely (Sugiyono, 2012:72).

The use of this research approach is used in order to achieve the research objectives, namely to know the influence of the PAKEM approach in improving reading skills a beginning. This research is applied to group A of KINDERGARTEN as many as
25 students. Method of collecting data in this study, namely yang done using observation of participation (participant observation) is a method of data collection used to gather research data through observation and sensing where the observer or researcher is really involved in the everyday life of the respondents. The second method is by using the test. The first thing that is done in the execution of experiments using single-subject design is done by doing a preliminary observation to the students to see how many students who are not yet able to read. After the test was given to a subject that has not been given the treatment (pretest) to see the ability to read the beginning of the data obtained after students who have problems in reading skills beginning, then given treatment that is teaching reading beginning which is based on the EXISTING approach. After a treatment to students who have problems in reading at the beginning, then provide test again to find out beginning reading skills of students. In the posttest will be obtained as a result of the experiments in which the ability to read the beginning of students increases or no change at all. Then compare the O1 and O2 to determine how big the differences that arise if there as a result of the variable for which experimentation. After the comparison, then the data were analyzed using t-test (Sugiono, 2012:166)

**RESEARCH RESULTS**

From the results of the initial observation that has been made to 25 students, only 2 students were able to read the beginning. Based on the results of observation, then the corresponding pretest reading skills a beginning. From the results of pre test has been done, then only 3 children who can read, so it needs to be given preferential treatment in the form of learning to read the beginning of using the EXISTING methods.

From the results of the above calculation, then obtained sig (0.000) < 0.05 so Ha then accepted. And the hypothesis "application of the PAKEM can improve reading skills beginning on group A" received.

From the results of the analysis that has been done, then it can be seen that the ability to read the beginning of the student can be done through models of learning that is fun. Students do not feel burdened by a monotonous nor of classical learning, but it can be done
by playing while learning and learning while playing. This is due to the child's play is an activity which is attached directly on the nature and needs of child development. The play is also defined as an activity that's fun, spontaneous, focused on the process, the rewards are member of active, fun, and flexible. The more an activity has the characteristics, means of activity that increasingly is playing (Solehuddin, 1996 in URhttp://pauljateng.xahzgs.com/2015/04/metode-pembelajaran-paud-yang-efektif.html).

DISCUSSION

Reading skills are the basic for various fields of study. If school-age child in the beginning did not immediately have the ability to read, then it will experience a lot of difficulties in learning a variety of majors in the next classes. Therefore, children should be learning to read so he can read to learn (Lerner, 1989:349). The ability to read not only allows one to improve skills and mastery of a wide range of academics, but also allows participating in socio-cultural life, politics, and fulfill emotional needs (Mercer, 1979:197). Reading is also beneficial for recreation or to gain pleasure. Given the multitude of benefits of reading skills, then the child must learn to read and difficulties learning to read if can need to be addressed as soon as possible. Reading is in fact a form of communication. Soedarso (1983) suggests that reading is a complex activity that requires a large number of separate actions, including the use of notions, fantasies, observations, and memory.

PAKEM approach applied in improving reading skills this is the beginning of manifestation of active learning (active learning). Therefore, the teacher was supposed to implement active learning as a foundation early in the performance of the PAKEM. Do not let the conventional learning methods are maintained, regardless of the development potential of the students as the provision in the face of time future. PAKEM is able to give attention to this aspect of the presentation of learning. The presentation in this learning process can be done with the troubleshooting, curat opinions, learn by doing (learning by doing), using many methods are adapted to the context, or group work.

Many factors affect the ability to read, either read the beginning as well as advanced reading (comprehension). Factors that affect reading beginning according to Lamb and Arnold, 1976 (in Rahim,2006:16-29) are: (1). physiological factors that include physical health, neurological, and consideration of gender. Fatigue is also an unfavorable condition for children to learn, especially reading. Some experts suggested that the neurological limitations (ex. Various defects of the brain) and the lack of physically is one of the factors that can cause a child to fail in improving reading skills and their understanding. Disorders of the tool talk, hearing, and vision can slow the progress of the study. Although it has no interference on vision, several children experience difficulty learning to read. It can happen because children experience difficulty learning to read. It can happen because the children experience difficult learning is not develop. Example, their ability in distinguishing symbols of molds, such as letters, numbers, and words. For example the student can not distinguish b, p and d. Differences of hearing (auditory discrimination) is the ability to listen to the similarities and differences of the sound of the language as an important factor in determining a child's reading readiness (Lamb and Arnold, 1976); (2) the intellectual factors, defined by Heinz thinking as an activity that comprises the essential understanding of the given situation and responded appropriately (Page et al, 1980). Associated with the explanation above, Heinz Wechster (in Harris and Sipay, 1980) argued that intelligence is the ability of the individual to act globally in accordance with the objective, rational thinking, and doing it effectively to the environment. In General, the intelligence of the child are not fully influenced the successful or whether children in reading the beginning. Teaching method of teacher factors, procedures, and capabilities of teachers also affects the ability to read the beginning of the child; (3) environmental factors also affect the progress of the reading skills of students. Environmental factors include the background and experience of children at home, as well as family socioeconomic kid, (4). Psychological factors that include motivation, interest, as well as social, emotional maturity and adaptability.
CONCLUSIONS AND SUGGESTIONS

CONCLUSIONS
The conclusion that can be addressed during the ongoing research activities is of 25 students in a group, only 2 students were able to read. Read the question is to know the letters and the meaning of those letters. In addition, the results of the initial observation and pretest had done then reading skills beginning in Kindergarten has not reached the expected results. There is a tendency that the reading skills are shown only as students memorize the letters, but without knowing the meaning of the letter when it was incorporated into a Word. In addition, the results of the observations done by mobilising the tendency of teachers who teach with classical and more using the student worksheet. Therefore, researchers are using the existing learning to improve reading skills in group a. beginning of posttest has done, then it can be seen that there is an increase in the ability to read the beginning. Of the 25 students, they experienced an increase in the ability to read it.

SUGGESTIONS
From ongoing research, so the researchers suggest:
1. Control the other variables which can be annoying if the implementation of the research that will be done.
2. students are expected To follow the learning activities that can achieve optimal results.

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THE ROLES OF ICT IN HIGHER EDUCATION IN INDONESIA IN 21ST CENTURY

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ABSTRACT
This paper is intended to highlight some roles of ICT in higher education in Indonesia for the 21st century. It is argued that ICT has much impacted the educational practices up to the present date. It is further predicted that the impacts will grow considerably in years to come and that ICT will become a strong agent of change among many educational practices. It is evident that the use of ICT in education is increasing very rapidly in various provinces in Indonesia. One of the most common problems of using ICTs in education is to base choices on technological possibilities rather than educational needs. In developing countries like Indonesia where higher education is fraught with serious challenges at multiple levels, there is increasing pressure to ensure that technological possibilities are viewed in the context of educational needs. The use of ICT in education should make it more student-centered though some problems arise. While every aspect of education is moving rapidly, the roles of ICT in higher education are becoming more important. This paper suggests that ICT in higher education is not only a technique for educational development but also a way of socio-economic development of the nation.

Keywords: ICT, Education, Socio-Economic Development

INTRODUCTION
International level of services and accessibility to information and communication technology (herein after termed ICT and throughout this paper ICT and ICTs are interchangeable) is seen as the top priority of every nation. The policy of using ICTs in every department and sector are often considered as the need than just the want. While so, it is recognized that one of the distinctive features of human beings is their capacity to adjust to new conditions and acquire new knowledge (see: Karwowski, 2006:1). Furthermore, what makes this knowledge an ever-thriving entity is humans ability to impact this knowledge to others. Transfer of knowledge, which is one of the foundations of learning, is among the most fundamental social achievements of human beings.

Education for new emerging societies requires ICTs to facilitate large-scale learning needs for social and economic development. For the first time in history, information and scientific knowledge are not simply the means of improving society, but main products of the economy. Moreover, knowledge is a major asset and product of the society upon which continued economic well-being and social development depend. ICTs are in the mainstream of these developments. ICTs and information society are concerned with the creation, acquisition, sharing, dissemination, delivery, support and recognition of knowledge. ICTs are the means for providing an access to and engaging in the continuous learning that becomes necessary for successful participation in the society development of all social groups of population (Kinelev; Komsers; Kotsik, 2004:5).

As lecturers, building communicative relationships with students is not only something crucial but also to adjust the development in education, especially in the process of learning and teaching. Verbal and non-verbal as well as rhetorical techniques for delivering communication are no longer sufficient. Videos animation, audio clips, and other media are needed to provide a
The concept of moving the traditional classroom of desks, notebooks, pencils, and blackboard to an online forum of computers, software, and the Internet intimidates many teachers who are accustomed to the face-to-face interaction of the traditional classroom. During the past two decades, online instruction has become extremely popular, as it is evident in the rise of online universities. It is a great success that countries like Mozambique and Laos have now enjoyed the use of ICTs in the process of learning and teaching in many of their universities (Olsson, 2002:6-10). In the two countries, many students find it difficult to come to campus due to financial problem, unemployment, family responsibilities, health issues, and other constrains. As such, ICT-assisted education is urgently needed in order to keep up with the world development.

For Indonesia, where most big universities are in major cities, computer multimedia offers ideal opportunities for creating and presenting visually enriched learning environments. ICTs as the latest technologies associated with virtual reality have played some important roles in the very near future (the term future is used under the consideration that not all universities, even in major cities, have implemented such technologies (see: Hamid, 2014:1-2). Management institutes and educators have still been attempting an increased incorporation of collaborative group work, problem-solving and decision-making through technology as an integral component of pedagogy. There is no doubt that, in the very near future, technology-based tools can enhance students cognitive performance and achievements if used appropriately in accordance with the knowledge of learning and as part of a coherent educational approach.

Computer-based systems offer great potential for delivering teaching and learning material. The rapid development of ICTs, particularly the internet, is one of the most fascinating phenomena characterizing the “Information Age”. ICTs power the access to information, enable new forms of communication, and serve many on-line services in the spheres of education, culture, entertainment, e-commerce, and socio-economic development. While every aspect of education is moving rapidly, the roles of ICTs in higher education are becoming more important, such advantages do not touch the economic fields as much as in education do.

**What is ICT?**

Information and Communication Technologies are referred to as the varied collection of technological-gears and resources which are used to communicate. They are also made to generate, distribute, collect and administer information. ICTs are the forces that have changed many aspects of the way people live. ICTs are also defined as “the umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries. It is strange to her that the term is somewhat more common outside of the United States (see; Rouse, 2016:1-2).

Generally, ICTs consist of the hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services. ICTs can be divided into two components, Information and Communication Infrastructure (ICI) which refers to physical telecommunications systems and networks (cellular, broadcast, cable, satellite, postal) and the services that utilize those (internet, voice, mail, radio, and television), and information technology (IT) that refers to the hardware and software of information collection, storage, processing, and presentation.

In Bakings view, ICTs refer to all the technologies used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions (2016:1-2). In her view, ICT-education is basically our society’s efforts to teach its current and emerging citizens valuable knowledge and skills around computing and communications devices, software that operates them, applications that run on them and systems that are built with them. The importance of ICTs in education is, people can provide themselves with relevant and
contemporary experiences that allow us to successfully engage with technology and prepare them for life after school.

Baking (2016:2) also states that human are living in a constantly evolving digital world. ICTs have an impact on nearly every aspect of human lives—from working to socializing, learning to playing. The digital age has transformed the way young people communicate, network, seek help, access information and learn. People must recognize that young people are now an online population and access is through a variety of means such as computers, TV and mobile phones.

In relation to science and technology, ICTs are used for data logging. That is using sensors to record variables such as temperature, moisture, light and pressure, to assist in the recording, presentation and analysis of results so that pupils can spend more time on interpretation, evaluation and the formulation of hypotheses about the implications. In simulations and modeling, ICTs are used to help students understand phenomena which may be too slow, too fast, too dangerous or too expensive to investigate in the school laboratory, and to allow them to investigate the effects of changing variables in the situations represented or to consolidate and reinforce conceptual understanding (Baking, 2016:2-3).

Baking (2016:3) further states that in relation to databases and spreadsheets, ICTs are used to enable students to organize, search and sort information in order to explore relationships, look for patterns and test hypotheses (such as extracting data on the nutrient value of different foods). In relation to publishing and presentation software, ICTs are used for word processing and desktop publishing packages and multimedia authoring software, to enable students to develop understanding and present their findings to others. While so, as information resources (the Internet, CD-ROM and data files), ICTs are to enable students to find information and thus to develop their knowledge and understanding of science. Baking concludes that in short, ICTs have an impact on nearly every aspect of human lives—from working to socializing, learning to playing. In her view, the digital age has transformed the way young people communicate, network, seek help, access information and learn. It must be noted that young people are now an online population and access is through a variety of means such as computers, TV and mobile phones (Baking, 2016:2-3).

When looking at the integration of ICTs to support the achievement of educational objectives, it can be found that after almost a decade of using ICTs to stimulate development, it is not yet fully integrated in development activities, and awareness-raising is still required. One of the main objectives of the paper is to point out the roles of ICTs in higher education and to compare such roles with the similar ones in the development of economy.

The Roles of ICT in Higher Education

ICT in Higher Education

During the last decade, numerous studies and reports have highlighted the opportunities and the potential benefits of ICT for improving the quality of education in Indonesia. In many other countries, ICT has so far been viewed as a major tool to enable method for collecting and collating information about pre-service teachers pedagogical beliefs regarding the integration of ICT (Vallance, 2007:51-65). ICT has also far been viewed as the mechanism at the school education level that could provide a way to rethink and redesign the educational systems and processes, thus leading to quality education for all. In Europe, appropriate use of ICT in school education is considered a key factor in improving quality at this educational level. The European Commission is promoting the use of ICT in learning processes through its eLearning Action Plan, where one of the aims is “to improve the quality of learning by facilitating access to resources and services as well as remote exchange and collaboration” (see: Sangra and González-Sanmamed, 2010:209).

Integrating ICT in teaching and learning is high on the educational reform agenda. Often ICT is seen as indispensable tool to fully participate in the knowledge society (Mustafid, 2012:1-12). ICTs need to be seen as an essential aspect of teachings cultural toolkit in the twenty-first century, affording new and transformative models of development that extend the nature and reach of teacher learning wherever it takes place. For a developing country like Indonesia, ICT
can moreover be seen as a way to merge into a globalizing world. It is assumed that ICT brings revolutionary change in teaching methodologies. The innovation lies not only in the introduction and use of ICT, but in its role as a contributor towards a student-centered form of learning and teaching.

While many faculties are already creating courses that use some elements of blended learning without even realizing it, online tools have become more popular and demanding. Integrating technology into curricula seems like a natural course of action for many instructors. Before determining if teaching with technology is right for any program, however, it is important to understand the difference between the different types of learning environments (Ann[b], 2016:1-9).

In relation to ICT, any type of learning will fall into any one of these three categories. They are either: face-to-face, blended, or online. Face-to-face courses are what are thought of as the traditional learning experience on most college campuses. These take place with all members of the classes—instructor(s) and students—meeting in the same physical location at the same time. Differently, blended courses are ones that integrate online with traditional face-to-face class activities in a well-planned pedagogically valuable manner, where some portion of face-to-face time is replaced by online activity. Also differently, online courses are courses that are taught primarily in an online environment. In some cases, these courses will require that all participants meet in a face-to-face environment one or two times per month, but nearly all of the instructional and learning activities occur online (Ann[b], 2016:1-9).

When viewed in most campus conditions in Indonesia, the ideal course type for both instructors and students is the blended one. As such, the move to a totally online course is a considerable step for the faculty who has been accustomed to teaching in a traditional face-to-face environment. Online courses are generally defined as any courses in which 80% or more of courses content is delivered online, and are still not widely implemented, particularly in the undergraduate curriculum. Blended courses are typically defined as those that deliver 30–79% of course materials online. Sometimes referred to as hybrids, blended courses strive “to join the best features of in-class teaching with the best features of online learning to promote active independent learning and reduce class seat time” (Ann[b], 2016:1-9).

In order to determine whether a course is appropriate for online or blended, the following considerations (suggested by Loyola University, Chicago) may help determine whether course content allows for effective virtual delivery.

a. What are the identified student learning outcomes for the course?
b. Who is the intended audience for the course/program?
c. Does the faculty expect to draw students from outside your geographic area?
d. How does this course fit into the department hierarchy of courses (what courses come before or after and feed into or build from this course)?
e. How much of the course content could be easily adapted to student-centered learning?
f. Could course content be appropriately adapted to a virtual environment?
g. Is there a lab component that would be difficult to replicate online?
h. Are there role-playing scenarios that could not be conducted using online media?
i. Does the nature of the content allow for interaction in both the synchronous and asynchronous formats?
j. What are the technology skills of the average student traditionally taking this course?
k. How self-motivated and self-directed are students in the program?
l. What type of access to current online technologies will the students have?
m. What is the learning/teaching style of the instructor?
n. What types of assessment strategies are used in the course?
o. Does the department have accreditation standards that may impact this decision?

While online courses and programs offer convenience for a wide range of students, some do not want to sacrifice the benefits that can be gained with face-to-face contact. Many online courses require several on-ground meetings, typically at the beginning and end of the course. For some, the final meeting serves as a final exam period that is crucial, addressing the concern regarding verification of student identity (is the student taking the exam the registered
student). Since blended courses provide a mixture of online technologies and face-to-face interaction, content delivery is more flexible. Content in online courses needs to be carefully structured to effectively deliver the course information but also continuously capture student interest. In short, as Bhatnagar proposes upon his survey (2013:1-5), all students and faculty members and academic staffs should be ready to implement the ICT in the learning and teaching processes.

In order to detail such a readiness, following points (proposed by Task Team, 2013:1-9) for each part is outlined for easy checklist for the stakeholders.

(a) Faculty Technology Readiness

Skills and strategies for teaching with technology is something demanding prior to the implementation of ICT in any faculty. Whether teaching completely online or in a traditional classroom, the approach to teaching is evolving because of the role technology plays in our students lives. Using technology is no longer relegated to the social environment but has now become an expectation in the classroom among our students. How does one, as faculty, address this shift from the former model of teacher-as-deliverer of all knowledge to teacher-as-facilitator of learning? While the “net-geners” (students who have grown up with Internet access) may have different social interaction and relaxation practices (often involving technology) than students of previous generations, research suggests they are education-and goal-oriented (Barnes, 2007 in Task Team, 2013:2).

The challenge in educating the contemporary students is that they learn differently than the students who graduated even a few years ago. As heavy technology users, net-geners are more comfortable learning in hands-on situations and using methods that require inquiry. However, does this shift in learning style mean that faculty must completely change how they teach? After all, faculty, too, have comfort zones that revolve around their own teaching and learning preferences. Additionally, one may not be doing the students justice if one does not expect them to function to some extent in the arenas of traditional academic approaches. It is suggested that the solution is a compromise: faculty need to rethink how materials are presented, keep the best strategies and restructure those that may no longer be effective. Lectures have been maligned over the past decade as antiquated modes of delivering materials, yet some faculty rightly contend that some lecture-style delivery is important in their discipline. All of the considerations will lead to one point—the comfort of the faculty members with traditional technologies (email, file management, Word Processing, internet use, etc.).

(b) The Students Readiness

Prior to the implementation of ICT, it is necessary to consider the requisite technology skills that are reasonable to expect from students in the course. Besides, the professional expectations in the field should be related to the implementation of ICT. That is, will students have to exhibit proficiency in these skills in order to advance professionally? Another thing to consider is that there should be some significant generalizations that can be made about students who typically enroll in the course in relation to the use of ICT (Task Team, 2013:3).

(c) The Disciplines/Courses

Some things to consider in relation to the implementation of ICT-method are the type of expectations the discipline holds for delivery of the content of the course, the prerequisites to the course, the student learning outcomes, how the use of technology impacts progress toward those outcomes, and what technology expectations are implicit in the discipline. In Task Teams view (2013:3-5), faculty members often jump at using technology because it is popular with students or because it is new and exciting. This is not necessarily a negative position, but if the technology does not serve an educational purpose, it is self-serving rather than productive: technology for its own sake.

Furthermore, the amount of technology integration a faculty member incorporates should be driven by course objectives. That is, what outcomes are expected and how can technology help the students reach these outcomes. Additionally, while faculty, as well as students, need to move outside their comfort zone when investigating educational technology
use, there still needs to be a certain confidence that the technology can be mastered and incorporated without too much chaos. As the faculty determines what technologies to implement in the courses, it should be ascertained that the selections will maintain the intent and integrity of the course objectives.

(d) Qualities of an Online Educator

Another thing to consider prior to the implementation of ICT-method of learning and teaching in higher education is the faculty planning to teach an online course. Educators should be questioned what it takes to be a good online instructor. They should be familiar about the challenges they will face as they move into the online-teaching arena. These are just a few of the important points the faculty should ask themselves as they begin preparing to take the leap into cyber instruction.

According to Pelletier (2013:1-3), most of educators teach the way they were taught. This—in her view—presents a challenge for online faculty, who most likely received their education in a traditional, brick and mortar school. Online instruction is much different from face-to-face instruction. Based on such experience, she proposes four things as the basic elements that contribute to being an effective online teacher. First, it needs the presence of online educators. Online instruction might be more convenient, but it takes much more of educators’ time than on ground learning. An online course requires continuous interaction throughout the week. Educators’ presence is not required on a specific day or time but continuously to keep the learner challenged and engaged. The key is to find creative ways to enthuse the student to participate in the learning environment daily. Students are expected to be engaged in the online learning environment but it does not happen automatically. If educators want the students to be engaged, they must model the type of behavior they seek.

Second, in the online environment, communication is the key. The first thing to understand about communication is that the effect of the communication is not always what is written in black and white. Educators must read between the lines. Good communication requires attention to detail and a reiteration of what the student has stated or asked. This helps educators understand the communication and provides effective communication with the student. Exceptional facilitators are open to many different avenues of communication. This is not limited to email and could include text, Skype, blogs, Facebook, Twitter, Pinterest, LinkedIn, and telephone contact information (see: Isman, et al., 2004:10). Avenues of communication have no effect if educators do not respond. Educators should respond to all communication within a 24-hour period (more quickly if they can). Educators should post the information and office hours in a highly visible place within the Learning Management System (LMS) so students know when and how they can reach the educators if they need a question answered. Students do not have the benefit of educators’ nonverbal communication. Educators must consider their words very carefully and think about how the student will perceive the words. Avoid using slang or any comments that might be misconstrued. Educators should use positive words and tone to develop a trusting student/teacher relationship.

Thirdly, most online platforms should have a discussion board. Online facilitators must understand that this is where the heart of the learning happens. Exceptional facilitators must have a frequent and active presence in the discussion. According to Shaw (2014:1-2), it is recommended that educators respond to at least three student responses to the discussion assignment on four different days during the assignment week. When educators ask students questions, it is important to validate the students answer with a confirmation post. Without doing this, educators alienate the student and do not place value on their opinions and responses. As an educator, one should never reprimand a student in the discussion area. Any comments should be expressed with educators’ constructive feedback during grading or through a personal email. It is suggested, therefore, educators arrive in the discussion each week before the students to interact with the students throughout the week and to provide a discussion wrap-up. At this point, it can be seen that communication becomes even more important when ICT is implemented.

Finally, educators should provide constructive feedback. Grading is another teachable moment. Good educators should take the time needed to make constructive feedback to the
students. This should include positive as well as negative comments. It is necessary to sandwich the negative feedback between positive comments for maximum effect. While grading, educators should address the student by name when summarizing the overall quality of the assignment. They should also provide grading rubrics with comments with points earned to show the student how they derived their grade. Timeliness of grading is necessary. A reasonable guideline to follow is to grade all assignments no later than five days after the due date (see: Teacher Stream, 2009:3-9). It will be useful to communicate to students how they will be graded, when they can return the assignments, and the policy for assignments turned in late.

ICT in Higher Education Researches

Students of higher education are required to make some researches that manifest in the forms of papers, articles, and even final projects. In relation to such researches, applications of ICTs are particularly powerful and uncontroversial in higher education researches. A review of research on educational media, and more particularly on the integration of digital media in education, has allowed all parties in education to identify several areas of study that have been developed in different periods and under different epistemological, methodological and didactic assumptions.

In the past, researches have been centered on audiovisual media. However, given the development of other technologies and, particularly, the inclusion of computers in school classrooms (that manifest in the form of ICTs), new studies have been carried out on the impact and effects of the use of these technologies in schools. Research undertaken in the natural contexts of the school and classroom has shown that the teachers role is no longer the most prominent (Sangrà and González-Summamed 2004:2-4).

Another important dimension of ICTs in research is the use of online full text databases and online research libraries (virtual libraries) which are the direct outcome of the growth in tele-communications networks and technology. These databases and libraries provide researchers with online access to the contents of hundreds of thousands of e-Books from major publishing houses, research reports, and peer-reviewed articles in electric journals. Such online resources (as one of the dimensions of ICTs), provide unlimited and easy references for higher students to refer at any moment.

Since essay writing, final project, research papers, and/or even thesis writing is the most common test or examination in higher education it is recommended that students are using online resources to write their final project assignments. Petersen (2015:1-3) proposes the following resources to help prepare the final project assignments. (1) Read Write Think-Student Interactives; (2) Interactive Sites for Education; (3) Graphic Organizers; (4) Teach the Children Well-Language Arts; (5) Free Writing Resources; (6) Guide to Grammar and Writing; (7) Essay Mama; (8) Essay Punch; (9) Teen Ink; (10) Thesis Builder; (11) Novel Guide; (12) Hemingway Editor; (13) The Readibility Test Tool; (14) Word Counter; (15) Citation Machine. What the students need to do in getting started is just type any one of the phrases above and they will be connected and assisted.

For active researcher and higher students who enjoy writing articles, ICTs have been so helpful in providing resources in many forms. Two most popular and most helpful resources are free eBooks and E-Journals. Some other articles by experts that are not in journals are also useful as the academic resources (researchers must be selective in choosing any resources though). What the researchers usually do in searching for the resources is just type “50 places for free eBooks”.

Researchers might never imagine how difficult and messy the work can be if they have to set five or ten hard copies on the computer table while typing their papers, theses, or dissertations. Once they leave the table because they have to get a glass of water to get rid of the irritated throat, the books are scattered by the air-blow from the fan or just the light wind entering the room. Things will get worse if the researchers do not keep the pages signaled by any means. Working with the ICT, however, will skip away all those difficulties and keep the typing going smoothly because they can display some pages from different eBooks on the same screen. More than these all, the typing and the things run even much more smoothly as the
pages from the eBooks can be copy-pasted easily, modified, and academically paraphrased to avoid plagiarism.

**ICT in Higher Educational Teaching-Learning Process**

Academics have taken to the use of computer in teaching much more readily than they adopted earlier audio-visual media. This is because the strength of computers is their power to manipulate words and symbols—which is at the heart of the academic endeavor. There is a trend to introduce eLearning or online learning both in courses taught on campus and in distance learning. Distance education and eLearning are not necessarily the same thing and can have very different cost structures. Whether eLearning improves quality or reduce cost, it depends on the particular circumstances. ICTs in general and eLearning in particular have reduced the barriers to entry to the higher education business. Academics have revealed that ICTs should be introduced in a systematic manner that brings clarity to the business model through cost-benefit analyses.

As one of the learning resource and both software and hardware provider, Intel Corporation notes some of the advantages of the use of ICT. Some advantages they point out (2012:1-6) are that the use of technology ICT will offer following advantages.

ICT enables personalized learning. As educators in higher education, lecturers have known that learning is not a one size fits all. In that regard, technology offers a personalized learning environment that is tailored to students’ individual differences: progression level, pace, interests, learning style, and background. Technology provides the support and challenge required to keep students engaged and motivated and empowers them to reach their potential.

To many lecturers, outcome of teaching-learning process is difficult to measure. In relation to that, ICT offers measurable lecturer outcomes. ICT has brought about many dramatic changes in how lecturers teach and how students learn. Educators use ICT to design and assess learning activities, to communicate with students, parents, and community members, as well as to participate in professional development experiences.

While in so far education has involved the community, with ICT higher education can offer a greater community involvement. Technology can help support parents and community members involvement in student learning by using methods such as school websites, email, blogs, text-messaging, etc. All of these practices are intended to help and keep the parties concerned engaged in their local education system.

In many cases, it is difficult to enhance teamwork and cooperation among students. With ICT, lecturers find it easier to do such a thing. That is because, ICTs offer some possibilities to foster and increase student cooperation and teamwork. Similarly, technology implementation leads to increased collaboration and teamwork among lecturers who plan ICTs integration in their curriculum. It might sound new in country like Indonesia that ICTs also bridge the gender gap. Many researchers have found that ICTs have minimized gender differences in academic achievement. Lower achieving boys have improved performance and higher test scores with ICTs. Other studies recognize that ICTs have helped improve the performance and attitudes of female students in traditionally male-dominated fields.

Despite the fact that ICTs are considered as costly, at the same time they are believed to be a sound educational investment. Given scarce budget cash of most higher education and other institutions, ICTs are one of the key investments that should be made. That is, they benefit both teachers and students.

Other than the points above, there are many other points can be mentioned about the benefits of ICTs in higher education. Increasing global competition, enriched STEM Learning, develop global collaboration, improved academic reporting, and fostering workforce development are just to mention some. In both developed and developing countries, non-skilled jobs are disappearing. The rapid changes brought about by technology demand that workers learn not only how to use specific tools, but also how to implement strategies for lifelong learning in the workplace. A number of other issues have emerged from the uptake of technology whose impacts have yet to be fully explored. These include changes to the makeup of the lecturer pool, changes to the profile of who are the learners in the courses and paramount
in all of this, changes in the costing and economics of the course delivery (see: Oliver, 2002:2-5).

All of the above points of ICTs in higher education seem to lead to one very best thing in education. They provide both lecturers and students more chance to make the teaching-learning process more student-centered. This had been the problem so in Indonesia where teachers and lecturers were still seen as people who held the biggest authority in class and even in schools and universities. With ICTs, however, such traditional views are no longer in practice.

According to Oliver (2002:4), in the past, the role of instructor in an educational institution was a role given to only highly qualified people. In the past, education has been a privilege and an opportunity that often was unavailable to many students whose situation did not fit the mainstream. Through the flexibilities provided by ICT, many students who previously were unable to participate in educational activities are now finding opportunities to do so. The pool of students is changing and will continue to change as more and more people who have a need for education and training are able to take advantage of the increased opportunities. Interesting opportunities are now being observed, for example, school students studying university courses to overcome limitations in their school programs and workers undertaking courses from their desktops.

Similarly, in Player-Karo’s view (2012:2), the major teaching and learning challenges facing higher education revolve around student diversity, which includes, amongst others, diversity in students’ academic preparedness, language and schooling background. Education is perhaps the most strategic area of intervention for the empowerment of human resource in any society and the use of information and communication technologies (ICTs) as an educational tool in the promotion of education advancement has immense potential. The application of ICTs as the tool for effective enhancement of learning, teaching and education management covers the entire spectrum of education from early childhood development, primary, secondary, tertiary, basic education and further education and training.

ICT and Socio-economic Development in Indonesia

Despite all of the above advantageous roles of ICTs, one thing is still considered difficult to develop with ICTs. Some educators still find it difficult to involve ICTs in supporting economic development in rural parts of Indonesia. While some researchers suggest that implementation of ICTs in the classroom, along with the transformation to learner-centered instruction, supports economic and social benefits throughout a country, only small numbers of educators and students take the advantages of using ICTs to develop their financial condition in rural areas.

In Bangladesh, ICTs have had a major transformative impact across all strata of its society. In this country—also considered as the developing one—ICTs have played a catalytic role in dissemination of information, knowledge transfer, healthcare, capacity building and improved governance (see: Rahman, et al., 2013:1-7). In this country, ICTs have played very significant roles in the field of social security, rural-economy, health care facilities, women empowerment, disaster and emergency response. In other words, ICTs have reshaped and influenced many more parts of life in Bangladesh compared to that of in Indonesia.

As suggested by Rhodes (2005:40-45), implementing ICT in the form of E-commerce offers some potential advantage of rapid market response to changing needs through shortened supply chains and the enabling of low cost customization of marketing communications. Such implementation could radically reshape customer relationships for both global companies and local enterprises. E-commerce could provide for mass customization without compromising mass production and allow businesses to reach a large number of people with rich information. As a result, this will lower the cost and reach greater access to new markets and improved customer relationships. That is because business relationships are characterized by high levels of information exchange, trust, cooperation and adaptation. ICTs offer such advantages in lower costs.

Referring to various sources as proofs, Rhodes (2005:40-45) states that in any developing country the government should attempt to adapt E-commerce to their context, key
factors around business trust, information security and socio-cultural factors. Rhodes gives the reason that, in near future, market forces will continue to drive the fast pace of E-commerce regardless of the concerns for security. Some benefits that the government can offer in stimulating such programs of E-commerce are, among others, E-Commerce benefits from the reduction of marketing, operation, and transaction coordination in the production for both the buyers and sellers, both suppliers and consumers. These are the points that Indonesian government should also consider in implementing ICTs in developing the socio-economic fields.

CONCLUDING REMARKS

As stated, many factors are bringing strong forces to bear on the adoption of ICTs in education. Contemporary trends suggest that with ICTs educators will soon see a large scale of changes in the way education is planned and delivered as a consequence of the opportunities and affordances of ICTs. It is believed that the use of ICTs can increase access to more learning opportunities. It can help to enhance the quality of education with advanced teaching methods, improve learning outcomes and enable reform or better management of education systems. Extrapolating current activities and practices, the continued use and development of ICTs within education will have a strong impact on what is learned, how it is learned, when and where learning takes place, as well as who is learning and who is teaching. The continued and increased use of ICTs in education in years to come, will serve to increase the temporal and geographical opportunities that are currently experienced.

In this paper, it has been described how to explore the role of ICTs in higher education as education progresses into the 21st century. In particular, it is argued that ICTs have impacted on educational practice in education to date in some reasonable ways but that the impact will grow considerably in years to come and that ICT will become a strong agent for change among many educational practices. Looking into the current activities and practices, the continued use and development of ICTs within education will have even a stronger impact the systems of education in the years to come.

The upshot of all this activity is that the stakeholders should see marked improvements in many areas of educational endeavor. Learning should become more relevant to stakeholders needs; learning outcomes should become more deliberate and targeted, and learning opportunities should diversity in what is learned and who is learning. At the same time, quality of programs as measured by fitness for purpose should continue to grow as stakeholder groups find the offerings matched to their needs and expectations. To ensure that the opportunities and advantages are beneficial, it is important to ensure that the educational research and development is sustained.

While the use of ICTs have much impacted on educational systems as well as minimizing the costs of education as a whole, ICTs should at the same time help the educators as well as the students start thinking of how to develop and disseminate their financial condition in rural areas. In other words, the mastery of ICTs should simultaneously stimulate the government to convert the present business systems into E-businesses. As such, the mastery of ICTs will play its roles not only in higher education but also in socio-economic development of the nation.

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PROFILE OF METACOGNITION OF MACHINE TECHNOLOGY VOCATIONAL HIGH SCHOOL STUDENTS WITH LOW ABILITY AND COGNITIVE STYLE OF FIELD INDEPENDENT MODEL IN TRIGONOMETRY PROBLEM SOLVING

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ABSTRACT
One factor constituting a major concern for teachers to improve the quality of Machine Technology of vocational education is the student's ability to solve problems so that they can understand and apply the concept comprehensively and profoundly. Understanding concepts of Trigonometry comprehensibly and profoundly facilitates the vocational high school students learn other subjects such as engineering drawings that sustains manufacturing drawing techniques subjects, lathe machining engineering, milling machining techniques, and CNC machining techniques. One of the advantages of the process involving metacognition in mathematical problem solving is the development of strong and thorough understanding of the math problems. On the basis of this phenomenon, the researchers felt the need to examine more deeply about the profile of the metacognition of the Machine Technology vocational high school students with lower ability and field independent cognitive style in mathematical problem solving in particular trigonometry. The present study was explorative with qualitative approach. It was held at the Machine Technology Department of SMK Krian 1 (a vocational high school) of Sidoarjo. The main instrument in this study was the researchers themselves as human tools. The data analysis has started from the preparation of the study until after the data collection process was complete. The further data analysis was carried out into four stages: the categorization of data, data reduction, data presentation, drawing conclusions. The results indicated that the students with poor field independent cognitive styles conducted very minimal metacognitive activity in problem solving trigonometry.

Keywords: Metacognition, Low Ability, Cognitive Style, Troubleshooting, Trigonometry

INTRODUCTION
Standard competency for vocational students for attitude domain is Having [through receiving, running, cherish, appreciate, practice] behavior that reflects the attitude of the faithful, noble [honest, polite, caring, disciplined, democratic, patriotic], confident, and responsible for interacting effectively with the social and natural environment as well as in established itself as a reflection of the nation in the association world, to the knowledge domain is Having [through knowing, understanding, applying, analyzing, evaluating] knowledge of procedural and metacognitive in science, technology, art culture with insight into humanity, nation, state, and civilization-related causes of phenomena and events [in the field of specific work] according to their talents and interests, while for the domain skills are Having [through observe, ask, trying, process, present, reasoning, creating] ability to think and act of effective and creative in the realm of the abstract and concrete as the development of learned at school independently [on specific areas of work] according to their talents and interests. (Permendikbud 54, 2013).
Based on the above, it appears that metacognitive knowledge is something that is very important and must be held for students to think about their own thinking and the ability of students to use specific learning strategy appropriately. In general, metacognition deals with two-dimensional thinking, namely: (1) self-awareness of cognition, the consciousness of a person about his thinking; (2) self-regulation of cognition, the ability of someone using awareness to organize thought processes (Bruning, Scraw and Running, 1995).

One of the goals given mathematics courses as listed on the curriculum are as a means of structuring reasoning learners. By studying mathematical, students are expected to reason and think logically, analytically, critically, creatively, and can work together. Additionally attachment Permendiknas No. 22, 2006 in the standards of the contents on 23 May 2006 (MONE, 2006: 346) states that the purpose of learning mathematics in SMK is that vocational high school students can: (1) understand the concept of mathematics, (2) use of reasoning, (3) to solve the problem, (4) communicate ideas, and (5) have an attitude appreciate the usefulness of mathematics in life.

Further, by studying mathematics, students are expected to solve any issues or problems encountered, whether the problems associated with math itself or associated with other subjects using a mathematical concept or related to everyday life in the field work according to their talents and interests.

One of the advantages of the process involves metacognition in mathematical problem solving is the awakening strong and thorough understanding of the mathematical problems that required by vocational students to solve mathematical problems well which is a requirement for other subjects so expect an increase in the quality of vocational education.

The results of further analysis to study TIMSS show that the questions used to measure the ability of learners divided into four categories: (1) low measuring capability up to the level of knowing, (2) intermediate measure the ability to level Appling, (3) high measure ability to level reasoning, (4) measures the ability to advance the level of reasoning with incomplete information. While the achievements of Indonesian children in TIMSS reports several times less so encouraging that 95% of Indonesian children only reached the middle level, while nearly 40% of learners Taiwan can achieve a high level and advanced. (Kemendikbud 2014, p 6). This shows that the mathematical ability of Indonesian children is very low.

By understanding the math thoroughly and deeply the backbone for other subjects, especially trigonometry, which is indispensable in understanding the subjects of engineering drawings that are the basis of the subjects of digital simulation that will sustain the subjects engineering manufacturing drawings, engineering machining lathe, engineering machinery frais and CNC machining techniques, in this case in particular math trigonometry is a very important basis as the support of other subjects in achieving competency standards, which is expected for students to be accepted in the world of work.

Based on this it is important for the students of vocational school in machine the field independent cognitive style to realize knowledge metacognitive abilities in order to solve mathematical problems both in the field of mathematics itself, or in its application in the subjects of specialization in accordance with their respective areas of expertise.

This is in accordance with the opinion of Ausubel, 1968, Theo van Els, and Brown, 1994 (in Mukhid, 2009) which states that a person's cognitive style may explain the success of individual differences in learning. Cognitive style is one of the characteristics of individuals who can help explain individual differences in learning success, including the ability of metacognition. This understanding shows that when people do learning activities, learning outcomes will be determined how to think of the individual concerned, how to manage, process, organize, and recall information obtained from teachers or other sources. From this sense it appears that between cognitive styles and metacognition have relevance. Therefore, when applying metacognition in mathematics learning activities, particularly learning problem solving also need to consider the cognitive styles of students in teaching.

Departing from the phenomenon, then the purpose of this study was to describe the profile of vocational students' metacognition Machining is less capable and field independent cognitive style in mathematical problem solving in particular trigonometry.
RESEARCH METHOD

Based on the research questions of this type of research is exploratory research with a qualitative approach. This research subject is class X of Vocational High School in Machining from SMK Krian 1 Sidoarjo that meet the specified criteria, namely the low capacity and cognitive style independent field.

Criteria for selection of research subjects, namely: (1) based on Mathematical Ability Test scores, students are divided into three groups of ability, namely the subject of highly capable, medium, and low. Subject said highly capable, if given a score above 87, the subject is capable of being, if obtaining a score of 0-66; and the subject is said to be less capable, if obtaining a score of 0-66; (2) by the score test results GEFT, of each category of the ability of students divided into two groups of cognitive style, namely: for students who are less capable, if the score GEFT> 9 then students, including low-ability groups of subjects whose cognitive style field independent if the score 0-9 GEFT between the low-ability students include a subject field dependent cognitive style, and (3) if the low capability of the category field independent cognitive style in item (2) at least there one subject who meets, then the next step is to ask the teacher a consideration of whether the subject has a score that is elected in accordance with the daily capability in its class and can express opinions verbally or in writing. If the subject is selected according to considerations Teachers do not have scores Ability Test Math accordance everyday functioning or cannot express opinions verbally or in writing it will have other subjects that meet the criteria in ways ranging from the selection of classes until at getting subjects selected according to criteria which is determined.

To browse the in-depth profile of vocational high school (SMK) in machining students' metacognition is less capable and field independent cognitive style in mathematical problem solving, conducted through in-depth interviews, so that key data used in this study is data from interviews. To collect data from interviews were absolutely accurate and can reveal the profile metacognition vocational students Machining is less capable and stylish cognitive field independent in solving mathematical problems can only be conducted by researchers themselves and can not be replaced by other instruments or cannot be delegated to others. Therefore, in this study, the researcher said to be the main instrument. In addition to researchers as the main instrument in this study required auxiliary instrument, namely: (1). Instruments Help I (Mathematical Ability Test / TKM); (2). Aid Instrument II Group Embedded Figures Test (GEFT). (3). Aid Instrument III (Tasks Troubleshooting). (4). Aid Instrument III (Interview Guide).

Data analysis is the process of searching for and compiling a systematic data obtained from interviews, field notes, and other materials with a way to organize data into categories, describe into the units, synthesize, organize into a pattern, choose which one important and that will be studied, and make conclusions so easily understood by oneself or others. Analysis of the data in this study include: (1) Analysis Data Test Capabilities Mathematics (TCM), (2) Data Analysis Group Embedded Figures Test (GEFT), (3) Data Analysis Task Troubleshooting (TTM), and (4) Data Analysis Interview.

RESULTS AND DISCUSSION

Mathematical problem solving contextual performed by the subject begins with the failure to recognize the problem, this is because the subject of the difficulty in interpreting the information given in the matter due to forget given the circles and trigonometry formulas that have been taught in the past period. The failure of the problem-solving process becomes blocked and undirected.

Under these conditions, it was agreed to terminate the process of solving the problem and continued the next day, so students can see the back of his book on trigonometry and circle, in order to do problem solving trigonometry. According to our view, the granting of this opportunity needs to be done so that the process of metacognition when students solve the problems, can be observed.

Problem solving process of the subject the next day is the subject was able to understand the problem well. Where the subject has been informed about angles in
trigonometry, circumference formula, the formula area of a circle, and the length of the tire machine compared with the length of the string.

At this stage of understanding the subject matter of the activities metacognition which includes planning is to seek long-tire machine, subjects seek a second circumference of a circle is then added to the length of tangents equations outside both circles, even though the subject is still ignoring the given angle calculations.

At the stage of making plans problem solving, metacognition activity of the subject is still minimal, namely the planned settlement of problems that still less than perfect due to lack of awareness of the subject of the image and the ability to translate a given angle. Phase troubleshooting implement the plan of the subject just looking around the circle drive pulley and driven pulley circumference of the circle and then summing the circumference of a circle with no attention given to calculate the angle of circular section which will be passed by the tire machine. While tangents equations outside likened tire machine is not counted by the subject but just drawn it.

Phase recheck the results of the troubleshooting performed by the subject is already re-examine the results is done and realized that the results were done by the subject incomplete and imperfect, because it confused to apply formulas which owned.

These results indicate that the subjects in solving mathematical problems contextual still be minimal metacognitive activity, this is due to lack of understanding subject to the meaningfulness of mathematical formulas that exist or subject only to memorize the formula without understanding the meaning and usefulness. Besides subjects also lack a good space spatial ability, that he failed to understand the picture drill machine provided. This resulted in a subject can see how long it takes the machine tires.

**CONCLUSIONS AND RECOMMENDATIONS**

In the contextual mathematical problem solving, metacognition activity performed by the subject is still very minimal. It can be seen from at least the type of metacognitive activity carried out by subjects at each stage of problem solving. Involving activity metacognition is needed in learning, especially in solving the problem, because the activity involves metacognition students will be used to involve all the knowledge and manage it well, so it will grow critical thinking, active, creative, and controlled which resulted in the establishment of understanding thoroughly and deeply.

**REFERENCES**


**BIODATA**

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ABSTRACT
The purposes of the research were: (1) understanding how to manage human resources in Higher Education, (2) understanding the functions and task of human resource management in education, (3) understanding the purpose of the reception, orientation, inventory, provision of welfare, promotion, transfer in human resource management at the Post Graduate of University of Sultan Ageng Tirtayasa. This research method was a survey with quantitative approach using questionnaire data retrieval techniques. The data was analyzed using descriptive statistics with tabulations and visualization in the form of tables and graphics. The findings of the research were: (1) lecturers and academic staff were satisfied with the activity of the competence development of self appropriate scientific competence and expertise, (2) lecturers and education staff were satisfied with the leadership of Post Graduate who provided the opportunity for career development and placement tasks according to scientific competence and expertise, (3) lecturers and education staff were enough or quite satisfied with the welfare award given by Director’s or Chairman of the Post Graduate of Sultan Ageng Tirtayasa University. The conclusion of the study was that the human resources management has met the requirements set by the Higher Education Act so that the organization of Untirta courses can be in line with expectations.

Keywords: human resources management, satisfaction of lecturers and educational staff.

INTRODUCTION
Universities in the modern world are expected to seek and cultivate new knowledge, provide the right kind of leadership and strive to promote equity and social justice. The goals of higher education are to provide an in-depth knowledge, seek academic development, educate students, as well as to coordinate national development demands. In achieving the mission and goals of the university, many factors should be taken into consideration especially the welfare of its human resources. Job satisfaction has been tested and proven as one of the factors that glue employees to their organization.

Organizations face strong pressures in corporate environments to be efficient and at the same time produce products of value. By ensuring that their workforce is optimal at all times most organizations can gain competitive advantage. Satisfied employees form a bond with the company and take pride in their organizational membership, they believe in the goals and values of the organization. These employees display high levels of performance and productivity. Dissatisfied employees display characteristics of low productivity, absenteeism, and turnover. these traits are highly costly for the organization.

Rue and Byars (1992:3) refer the job satisfaction as an individual’s mental state about their job. Job satisfaction refers to how content an individual is in his/her current position. Job satisfaction is a very important attribute which is frequently measured by organizations in order to ensure that their workforce is optimal. Employee performance can be defined as the productivity and quality of work an individual employee. studies have revealed that job satisfaction enhances employee performance. Employee are changing, they no longer stay in jobs that do not motivate or satisfy them. Fair salaries are no longer string enough incentives to keep them loyal. In contemporary times, organizations must do more to ensure that they retain talent.
The role of lectures is very vital to the university in raising corporate image and producing excellent graduates. Lecturers of academicians have their own professional, occupational, and personal interest in relation to their universities, including freedom to pursue excellence, the right to make decisions in relation to curriculum and research agenda, ensure balance between work and family, secure satisfactory pay levels, as well as opportunities for career advancement. Lecturer who always stressful and unsatisfied with the work will affect the performance and quality their work. This research measured job satisfaction as lecturers and educational staff as a consequence influenced by competence, career, and award or welfare.

**Problem research were:**
1. How do they feel about their job?
2. Do they satisfied with the job content with their competencies, job demand or career, and compensation or welfare, they obtained as an exchange with their job?

**THEORETICAL FRAMEWORK**

Job satisfaction is one of the most researched areas organizational behaviour. Bashayreh (2009:4) explains that job satisfactions is the most significant factor in understanding worker motivation, effectiveness, retention, and performance. Job satisfaction has been linked with enhanced job performance, positive work values, high levels of employee motivation, and lower rates of absenteeism, turnover, and burnout. Dissatisfied employees may cause undesirable job outcomes by stealing, moonlighting, and demonstrating high rates of absenteeism. As a result, these employees may withdraw if from the position psychologically, and display disruptive behaviours, such as not being functional, not attending meetings or wandering about trying to look busy. dissatisfaction produces a series withdrawal cognitions in which employees examine the costs and benefits associated with leaving their job, hence this type of thinking causes them to slip on productivity.

Van Der Zee (2009:6) describes that an individual’s choice of employment helps shape their view of themselves, broaden their daily life, and help to give meaning to their existence. From a management point of view, a satisfied workforce translate into higher productivity due to fewer interruptions caused by absenteeism, or good employees quitting. Bashayreh (2009:7) job satisfaction emphasises the specific task environment of the employee, individual’s affective attitude or orientations for work, and pleasurable positive state resulting from one’s job and job experience. Individual show pleasurable positive attitudes when they state satisfied with their job. So job satisfaction is a general attitude which is the result of many specific attitudes.

Jain, Jabeen, Mishra, and Gupta, 2007:5) explains that job satisfaction is crucial to be studied since it is considered as an important in improving organizations performance and competitiveness. High job satisfaction of employees will increase the productivity of an organization in turn will increase the organizational overall performance. Koopmans and Groothoff (2008: 19) measured satisfactions against workload, work place, task variety, working conditions, work times, salary, supervisor, colleagues, and work briefing. Roelen et.al. (2008:5) identified 11 factors related to job satisfaction: work content, autonomy, growth/development, financial rewards, promotion career advancement, supervision, communication, co-worker, meaningfulness, workload and work demands. Lecturers as educators and educational staff are require to have adequate academic capability, management capability and considerable skills. The ability of a person can affect the achievement of educational goals in each business unit in the Post Graduate.

Effort to improve the competence of self lecturer and educational staff who are in the labor must the vision, mission, purpose, discipline, commitment and self responsibility to the duties. Lectures and educational staff think the main task and duties enhancement. Lecturers and educational staff have a duty: (1) create an atmosphere of meaningful education, fun, creative, dynamic, and dialogue, (2) commited professionally to improve the quality of education, (3) the member’s and keep the good manners of institution, profession, and position in accordance with the trust given as lecturer and educational staff.
**METHODS**

Survey research was commonly used method of collecting information about a population of interest. There are two key features of survey research by question and sampling. Questionnaires is a predefined series of questions used to collect information from individuals. Sampling is a technique in which a subgroup of the population is selected to answer the survey questions the information collected can be generalized to the entire population of interest. The respondents are given a list of predetermined responses from which to choose their answer. Both variables were measured using a Likert scale developed with 5 point scalas ranging from 1 (not satisfied) to 5 (very satisfied). Sample research were lecturers and educational staff at Post Graduate Sultan Ageng Tirtayasa University. Techniques research conducted by random sampling of 55 lecturers and 14 educational staff. They fill out a questionnaire. The results of the questionnaire data analysis can be used to improve learning services in Post Graduate. Data collection analyzed by descriptive statistics.

**Results**

Table 1. Lecturers Job’s Satisfaction

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
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<td>1</td>
<td>Each semester seminars, courses, training more than 1 times</td>
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<td>2</td>
<td>Getting facility to obtain information on the Post Graduate</td>
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<td>3</td>
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<tr>
<td>4</td>
<td>Having the freedom to design the most appropriate instruction design for the courses of teaching</td>
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<tr>
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<td>Become an expert lecturer at the institution/other universities</td>
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**CAREER**

<table>
<thead>
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<th>No</th>
<th>Statement</th>
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<tbody>
<tr>
<td>8</td>
<td>Getting promotion/class according to their competencies</td>
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</tr>
<tr>
<td>9</td>
<td>Getting promotion opportunities in the structural position</td>
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<tr>
<td>10</td>
<td>Getting a fair evaluation of performance success</td>
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<tr>
<td>11</td>
<td>Getting satisfaction with the development of science in the Post Graduate</td>
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<tr>
<td>12</td>
<td>Workload taught according to SKP</td>
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<tr>
<td>13</td>
<td>Leaders Post Graduate directing leadership directly</td>
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<tr>
<td>14</td>
<td>Getting exemplary leadership courses</td>
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<tr>
<td>15</td>
<td>Getting certainty from the ledership courses</td>
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<tr>
<td>16</td>
<td>Getting consistency of enforcement Post Graduate academic</td>
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</tr>
<tr>
<td>17</td>
<td>Feel a conducive atmosphere working</td>
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<td>18</td>
<td>Getting the disclosure of information and the ease of communication with the ledership of Post Graduate</td>
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**AWARD/WELFARE**

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<td>21</td>
<td>Has facility/workplace adequate</td>
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<tr>
<td>22</td>
<td>Get health insurance or life insurance</td>
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<td>23</td>
<td>Awarded in accordance with work performance</td>
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</tr>
<tr>
<td>24</td>
<td>Getting health and safety</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>Getting the physical and psychological security in the workplace</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>Statement</td>
<td>Score in Percentage</td>
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<td>----</td>
<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>2</td>
<td>Getting facility to obtain Tupoksi appropriate information</td>
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<tr>
<td>3</td>
<td>Post Graduate appropriate knowledge and skills</td>
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<tr>
<td>4</td>
<td>Having the freedom to design the completion of design work in accordance with Tupoksi</td>
<td>1  2  8  3  0</td>
</tr>
<tr>
<td>5</td>
<td>Assignment of education personal in accordance with interest and scientific</td>
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**CAREER**

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<thead>
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<th>Score in Percentage</th>
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<td>Getting promotion/class according to their competencies</td>
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<td>7</td>
<td>Getting a promotion oppotunity in structural position</td>
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<td>Getting a fair evaluation of performance success</td>
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</tr>
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<td>9</td>
<td>Satisfaction with career development</td>
<td>0  4  5  5  0</td>
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<th>Statement</th>
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<td>Leader directs the immediate supervisor’s leadership</td>
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<td>Exemplary leadership</td>
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<td>Synchronization policy leadership</td>
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<td>14</td>
<td>Consistency of enforcement</td>
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<td>Working conducive atmosphere</td>
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<td>16</td>
<td>Disclosure of information and ease of communication with leaders</td>
<td>0  3  7  2  1</td>
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**AWARDS/WELFARE**

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<th>Statement</th>
<th>Score in Percentage</th>
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<td>17</td>
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<td>18</td>
<td>Get another extra income in accordance with achievements</td>
<td>0  0  10  3  1</td>
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<td>19</td>
<td>having facilities/workplace adequate</td>
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<td>get health insurance and guarantees</td>
<td>0  0  10  2  2</td>
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<td>21</td>
<td>Awarded in accordance with work performance</td>
<td>0  0  2  10  2</td>
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<td>22</td>
<td>Getting health and safety assurance</td>
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<td>23</td>
<td>Getting pyhysical and psychological safety in the workplace</td>
<td>0  4  10  0  0</td>
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**Table 3. Lecturers Job’s Satisfaction**

<table>
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<th>Statement</th>
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<td>2</td>
<td>Getting facility to obtain information on the Post Graduate</td>
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<td>3</td>
<td>Scientific competence and appropriate courses</td>
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<td>4</td>
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<td>5</td>
<td>Assignment lecturer of the course in accordance with interests and fields of science lecturer</td>
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<tr>
<td>6</td>
<td>become an expert lecturer at the institution/other universities</td>
<td>0  0  27  73  0</td>
</tr>
<tr>
<td>7</td>
<td>Being a visiting professor at other institutions/universities</td>
<td>0  0  0  0  1  0  0</td>
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**CAREER**

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<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Score in Percentage</th>
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<tr>
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<td>Getting promotion/class according to their competencies</td>
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</tr>
<tr>
<td>9</td>
<td>Getting promotion opportunities in the structural position</td>
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<tr>
<td>10</td>
<td>Getting a fair evaluation of performance success</td>
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</tr>
<tr>
<td>11</td>
<td>Getting satisfaction with the development of science in the Post Graduate</td>
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<td>12</td>
<td>Workload taught according to SKP</td>
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<td>Leaders Post Graduate directing leadership directly</td>
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<td>14</td>
<td>Getting exemplary leadership courses</td>
<td>67  33  0  0  0</td>
</tr>
<tr>
<td>15</td>
<td>Getting certainty from the ledership courses</td>
<td>73  27  0  0  0</td>
</tr>
</tbody>
</table>
DISSCUSSION

This result discussion based on Zafirovski (2005: 1-2) that satisfied employees are more likely to work harder and provide better services. Employees who are satisfied with their jobs tend to be more involved in their employing organizations, more dedicated to delivering services with a high level quality. Previous research has also suggested that loyal employees are more eager to and more capable of delivering a higher level of service quality. Researchers have

<table>
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<th>No</th>
<th>Statement</th>
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<td>17</td>
<td>Feel a conducive atmosphere working</td>
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<tr>
<td>18</td>
<td>Getting the disclosure of information and the ease of communication with the leadership of Post Graduate</td>
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**AWARDS/WELFARE**

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<td>Got additional income in accordance with its performance</td>
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<td>21</td>
<td>Has facility/workplace adequate</td>
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<tr>
<td>22</td>
<td>Get health insurance or life insurance</td>
<td>0 0 100 0 0</td>
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<tr>
<td>23</td>
<td>Awarded in accordance with work performance</td>
<td>0 18 45 37 0</td>
</tr>
<tr>
<td>24</td>
<td>Getting health and safety</td>
<td>0 45 31 24 0</td>
</tr>
<tr>
<td>25</td>
<td>Getting the physical and psychological security in the workplace</td>
<td>0 54 36 10 0</td>
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Table 4. Educational Staff Job’s Satisfaction

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<th>Statement</th>
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<td>Each semester seminars, courses, training, workshops more than 1 times in accordance tupoksi</td>
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</tr>
<tr>
<td>2</td>
<td>Getting facility to obtain Tupoksi appropriate information</td>
<td>0 43 43 14 0</td>
</tr>
<tr>
<td>3</td>
<td>Post Graduate appropriate knowledge and skills</td>
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</tr>
<tr>
<td>4</td>
<td>Having the freedom to design the completion of design work in accordance with Tupoksi</td>
<td>8 14 57 21 0</td>
</tr>
<tr>
<td>5</td>
<td>Assignment of education personal in accordance with interest and scientific</td>
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<td>6</td>
<td>Getting promotion/class according to their competencies</td>
<td>0 43 21 36 0</td>
</tr>
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<td>7</td>
<td>Getting a promotion opportunity in structural position</td>
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</tr>
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<td>Getting a fair evaluation of performance success</td>
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<td>satisfaction with career development</td>
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<td></td>
<td>0 14 43 14 29</td>
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<td>Working conducive atmosphere</td>
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<td>Getting salaries/allowances eligible</td>
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<td>Awarded in accordance with work performance</td>
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<td>Getting health and safety assurance</td>
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argued that service quality is influenced by job satisfaction of employees. The argument that employee satisfaction improves service quality is grounded on the theory of equity in social exchanges.

In the fields of organizational psychology, one of the most researched areas is the relationship between job satisfaction and job performance. Employees don’t work for free, most business are not volunteer services, so employers have to compensate them in some way for their time and effort. What used to be called “pay” became “remuneration” or reward. It refers to all the monetary, non-monetary, and psychological payments that an organization provides for its employees. Reward system have tree amin objectives: to attract new employees to the organization, to elicit good work performance, and to maintain to the organization, a reward system is intended to attract and retain suitable employees. An employer who develops a reputation as cheap is unlikely to be desirable in the job market, because employees will think it does not reward effort. The reward system also serves to maintain and strengthen the psychological contract.

The importance of human resources to operational performance has been noted by a few researchers. This is a strange concept as organizational knowledge residing in employees is the primary determinant of superior service quality, influencing market performance. A dedicated workforce may serve as a valuable, scarce, non imitable resource to enhance profitability from a strategic perspective. That highly satisfied workers have a higher efficiency rating as well. Being well adjust on the job, the satisfied workers have a higher efficiency rating as well is sure to perform better.

Result of study showed that welfare or reward is enough. Those who place a high value on compensation or reward or welfare would be influence that intrinsically motivate them. Organizations must motivate their employees and guarantee job satisfaction as this satisfaction is necessary to employees realising their worth and potential.

Effort to do improvements for lecturers are: (1) internet access in class should be connected, (2) enhancement welfare of lecture, (3) improving service for lecture and students, (4) enhancement togetherness and budget management, (5) enhancement infrastructure facilities, (6) improving quality information, (7) the need available cost of research and publication journal, (8) need working facilities lecture’s room at Post Graduate, (9) Available working facilities (example computers, printer’s, lighting) in the Post Graduate, (10) began thesis publishing online journals, (11) humu timely and scheduling teach balance between regular and non regular class, (12) administration salaries on time of every month, (13) salary expected every month, (14) visiting professor from overseas and domestic, (15) cooperation or joint program with other universities, (16) improving knowledge, skill by exchange lecturer with other universities, (17) lecture exchange abroad, (18) admission graduate class to the quality input, (19) clarity payment of fees to teach regular and non regular classes, (20) confortable workplace, (21) lecture with additional tasks are taken into account salaries and improved welfare.

Effort to do improvements for educational staff are: (1) legalitas should be clear to any work assignment, (2) delivery work must proven or not overload, (3) avaluation of employees performance should be done regularly, (4) rolling educational staff at least 3 years in regularly, (5) communication between the leadership with the staff about the work individually each semester, (6) infrastructure maintainance, (7) stable internet access, (8) medium communication between leader and educational staff by online and face to face, (9) enhancement to welfare or reward for educational staff, (10) maintenance mosque and ladie’s toilet, and (11) enhancement honorary award to educational staff regularly minimum once time a year.

CONCLUSION

1. Lecturers and academic staff were satisfied with the activity of the competence development of self appriate scientific competence and expertise.
2. Lecturers and education staff were satisfied with the leadership of Post Graduate who has provided the opportunity for career development and placement tasks according to scientific competence and expertise.
3. Lecturers and education staff were enough or quite satisfied with the welfare award given by Director’s or Chairman of the Post Graduate University of Sultan Ageng Tirtayasa.

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Biodata
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IMPLEMENTATION OF GUIDANCE AND COUNSELLING SERVICES FOR STUDENTS WITH DISABILITIES AT SPECIAL NEED HIGH SCHOOL OF BINA CITRA PATI

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ABSTRACT

Guidance and counseling services is a service that has an important role to the success of students with special needs in schools. Guidance and counseling services will be successful if it is accompanied by the right strategy service. The special need high school of Bina Citra Pati provides guidance and counseling services for student with special needs. The students at this school are students with intellectual impairments and students with hearing loss. This research was a qualitative descriptive analysis approach. The techniques of collecting data used were interviews, observation, and documentation. The research subjects consisted of principals, homeroom teacher, guidance and counseling teacher, and two students who had received guidance and counseling services. The data analysis was carried out on an ongoing basis with data collection, data reduction, data presentation, data verification, and conclusion. The study concluded that guidance and counseling services for students with special needs included the services of orientation guidance, information, educational guidance, vocational information, and career guidance. The guidance and counseling method at Special Need High School of Bina Citra used methods such as interview method, directive counseling method, non-directive counseling method and individual approach to optimalize the ability of children with special needs. There are still some things that have not been in accordance with the theory of guidance and counseling program for the students with special needs, namely (1) the lack of teachers and guidance and counseling expert staff for children with special needs, (2) limited facilities and infrastructure of guidance and counseling, and (3) the lack of evaluation of guidance and counseling for children with special needs.

Keywords: Implementation of Guidance and Counseling, children with special needs.

INTRODUCTION

Guidance and counseling program is one of the services that is inseparable from education. The purpose of this program is to optimize the development and potential of the children. All students are eligible for this service, not least children with special needs. Service for student with special needs should consider the needs of each needs, either individually, socially, morality and other needs as an impact of their disabilities.

Children with special needs often get problems as an impact of their disabilities, either directly or indirectly. The direct impact is in barriers in daily activities, while the indirect impact is activity restriction from society. Children with special needs often inappropriate treatment from parents and society. According to Wahyudi (1998: 22), society still thinks those children with special needs as part of a group of people to be pitied, so that negative attitudes towards people with disabilities tend to appear in people's lives. That negative treatment creates a feeling of frustration, inferiority, and the feeling that is not accepted by the society that affect to the personality of children with special needs.

It is needed to give assistance to children with special needs in order to make them succeed in life. According to Suhari and Purwanta in Aisyah (2014), children with special need’s success in the development process can be seen when they are able to participate in society. In this case, school has big role in helping children with special needs in this case is counselors or special education teachers. Special school is one of the formal institutions that have an important role in the success of students with special needs. One of the roles of special
school is to run integrated guidance and counseling program in all educational activities, and it is carried out an intensive, continuous, and consistent. Hopefully, through the implementation of guidance and counseling program for children with special needs in special school, it will support the educational goals, help to overcome barriers of children with special needs, and help personal development of children with special needs optimally.

According to Sunardi (2005), until now the implementation of guidance and counseling program, there is still a tendency that although teachers already understand the urgency of guidance and counseling program for children with special needs, but in practice it has not been systematically and intensively. So it has not been provide maximum results as expected. The implementation of guidance and counseling in special school still mostly at a glance, incidental if there is problem, less continuous, and do not have good administrative system. These problems happen because of the lack understanding of teacher about the functions of guidance; there is no guidance and counseling teacher in special schools, lack of facilities and infrastructure. If these problems are not solved, then the educational process will not go smoothly. This is accordance with Tohirin (2012), which states that the educational process in schools will not be successful if it is not supported by the implementation of guidance and counseling.

SMALB Bina Citra Pati is one of the schools that have guidance and counseling program for children with special needs. It is consisted of students with hearing impairment and students with mental retarded. Seeing this situation, the aim of this study was to (1) describe the implementation of guidance and counseling program in SMALB Bina Citra Pati; (2) describe the method that is used in guidance and counseling program for children with special needs in SMALB Bina Citra Pati; and (3) describe the obstacles in implementing guidance and counseling program for children with special needs.

PROCEDURE
The type of research is a field research (field research) which study that the process of data collection implemented in the field. Data collected focused on the implementation of guidance and counseling program in SMALB Bina Citra Pati and obstacles faced in its implementation. This research is qualitative. According Sukmadinata (2007), qualitative research is research that aims to describe and analyze the phenomena, events, social activities, perceptions, and beliefs both corporately and individually. Thus, this research is descriptive and used analysis. So the display of the data obtained will be presented in descriptions form to uncover the implementation of guidance and counseling program in SMALB Bina Citra Pati and obstacles faced in its implementation.

This research was conducted in SMALB Bina Citra Pati. This school has students with special needs which are students with hearing impairment, and students mental retarded. Those students are in grade X, XI and XII.

Sources of data in this study were obtained from the subject researches which are determined based on certain considerations of the researcher (purposive sampling). Subject researches were selected based on the criteria in order to make the data credible and accurate. Subjects research in this study consists of: 1 guidance and counseling teachers; the principal of SMALB Bina Citra; 6 classroom teachers (3 teachers of students with hearing impairment and 3 teachers of students with mental retarded); 3 students with hearing impairments, and 3 students with mental retarded. The chosen students are student who have been got guidance and counseling program and the representatives from each grade level. However, the primary subject is the guidance and counseling teacher, while 13 others are the seconder subject.

Data collection technique
a. Observation
Researchers used type of non-participant observation, where the researcher was not actively involved in activities and just passively observing during data collection.

b. Interview
Interviews were conducted to the subject research by using interview guide has been compiled about how the implementation of guidance and counseling program in SMALB Bina Citra, the
methods used and any obstacles encountered. Interviews addressed to the guidance and counseling teacher aimed to obtain data on the implementation of guidance and counseling program and obstacles faced during implementation. Interviews with the principal aimed to obtain data on the general about school and school policies related to the implementation of guidance and counseling program. Interview with classroom teachers aimed to obtain data on cooperation between classroom teacher and guidance and counseling teachers. And interviews with students aimed to obtain data related to respond and benefits of the program guidance and counseling program for them.

c. Documentation
The data collected through this documentation technique, among others: the profile of the school, the guidance and counseling program, and guidance and counseling activity report.

d. Data Validity Testing
Data validity testing in this study conducted as follows:
1. Doing a careful monitoring and continuous.
2. Data triangulation is conducted to check the data using other data outside of the primary data in order to check the validity of the data and as the data comparison. Triangulation that is conducted in this study was technique triangulation used source triangulation. Techniques triangulation was carried out by collecting different data using observation, interviews, and documentation. Source triangulation was done by collecting the same data from different sources through interviews with different subject research.
3. Discuss the data obtained with colleagues to complete the data in order to obtain more comprehensive data.

Data Analysis Techniques
Data analysis techniques in this study is conducted by collecting and reviewing all data obtained, then it is reduced by choosing, simplification, and focus on the things that corroborate the data obtained in the field. Then do the data display by describing in narrative form/sentences that are easy to understand. The last step is to verify and decision-making.

RESULTS AND DISCUSSION
Guidance and counseling for students with special needs are services such as counseling, guidance and problem solving for students with special needs. For students with special needs, of course, they have a problem that is more complex and require more attention than normal students. Based on research that has been done on the implementation of guidance and counseling services in SMALB Bina Citra Pati, overall the implementation of guidance and counseling program in SMALB Bina Citra Pati generally has been running well. For more details, research results will be described as follows.

A. Implementation of guidance and counseling program in SMALB Bina Citra Pati
Students in SMALB Bina Citra Pati consist of students with hearing impairment and students with mental retarded. Therefore, guidance and counseling program that is given is the focus to guide and assist students with hearing impairment and students with mental retarded in order to solve their problems and develop their potential optimally. Services provided include:

a. Orientation Service
Service orientation in schools is done by guidance and counseling teachers that work together with classroom teachers to provide knowledge to the students to enter the schools as a new world for them, especially for students who are just stepping on class X. Teachers provide an orientation/introduction about school and its environment. Implementation of this service is also considering to the children needs. For students with hearing impairments, orientation services more emphasis on the communication that can be understood by other students which is use sign language. For the students with mental retarded, service orientation is emphasized on the introduction of the school environment. The explanation to them is adapted to the student’s ability in capturing the information. Through this service orientation, students are expected to develop their potential.
b. Information services
Information services in SMALB Bina Citra are not only for students, but also involving other parties that can provide major influence on the students, especially parents. Information provided is usually about the education information and career information that is in accordance with the type of student needs.
c. Distribution and Placement Service
Distribution and placement service is a placement service/distribution in the classroom/study groups, as well as extra-curricular activities according to their talents and interests and personal circumstances and disorder. Implementation of this service in SMALB Bina Citra Pati has been good enough to place students with hearing impairment and students with mental retardation according to the capabilities, needs and desires of the students themselves. Such as: to the determination of classes and study groups and the selection of extracurricular activities. So that students are able to develop their maximum potential according to his ability.
d. Guidance Service
Barriers faced by the students with special needs would affect the ability to learn. Students with hearing impairment got difficulties with communication so that the learning process should require a special media and methods. For students with mental retardation, due to slow in receiving information, student learning must always be repeated continuously. To help the difficulties encountered, of course, tutoring services is very important for students. Implementation of the tutoring services in SMALB Bina Citra Pati has been applied properly to all students. Students who have difficulty in learning are given more attention from guidance and counseling teachers and cooperating with the classroom teacher.
e. Career Guidance Service
Beside the barriers in learning, students with special needs also have difficulty in selecting a career. Their Conditions impact to their ability. It is add with the negative perspective of people who think that they would not be able to work in the community. For that, they really needed career guidance for their future. Implementation of career guidance services in SMALB Bina Citra is already run well. It can be seen from the program and training to train their soft skills that are useful for them and it is customized for each needs. School also provide facilities and cooperate with the Training Center of Pati to conduct regular trainings every week (twice a week). The training that is given is carpentry, sewing, cooking, and computer training.
f. Individual Counseling Service
For Students with mental retardation often unable to behave appropriately to the society. For students with hearing impairment according to Somantri (2007), they tend to be moody, suspicious, unsympathetic, trust, jealousy, unnatural, selfish, and vindictive. Then individual counseling services in SMALB Bina Citra Pati carried out aimed to give service in depth to the problems of individual. Application of guidance and counseling program overall has been running well. Guidance and counseling teachers work together with classroom teachers in the process of guidance and counseling face-to-face. guidance and counseling teachers know that it is needed to cooperate with the classroom teacher, because students spend more time with the classroom teacher. So that classroom teachers must know the problems of the student well.

B. Methods of Guidance and Counseling program in SMALB Bina Citra Pati
The method used in Guidance and Counseling program in SMALB Bina Citra Pati is good enough. Here are some of the methods used in the implementation of Guidance and Counseling program, among others:
a. Interview method
Application of the interview method is good enough. Interview method is always used in Guidance and Counseling program for students with special needs in SMALB Bina Citra Pati. Guidance and Counseling teachers use this method to explore a problem when students are having problems or difficulties. Guidance and Counseling teachers look for facts to ask questions directly to the students. According to Guidance and Counseling, this method is the easiest way to find student problem.
b. Directive methods
Application of the directive method is good enough. It can be seen when there are students who need services of guidance and counseling. In this case, the guidance and counseling teacher in collaboration with classroom teachers and principals in providing solutions to problems/difficulties of the students. During this time the directive was quite effective method for students. They tend to follow all the suggestions of the Guidance and Counseling teachers, classroom teachers and principals.

c. Non directive methods
Non-directive method is student-centered methods to solve their own problems. Guidance and Counseling teacher only acts as a facilitator and provide direction only, while students are enabled to find solutions / answers of its own problems. During the application of a non-directive method on the implementation Guidance and Counseling services for students with special needs in SMALB Bina Citra Pati is not optimal. This is because the ability of students with special needs is not good enough to handle their own problem. They need intense guidance in resolving the problem. So sometimes classroom teachers, Guidance and Counseling teachers and principals intervene to help to solve the problem of students.

C. Obstacles in the implementation of Guidance and Counseling program
Overall, the Guidance and Counseling program for students with special needs in SMALB Bina Citra Pati is good enough. However on certain aspects are lack / not appropriate, such as:

a. Lack of human resources in SMALB Bina Citra Pati
Standard ratio between Guidance and Counseling teachers and students is 1:12. This means that one teacher guiding 12 students. But in SMALB Bina Citra Pati there is only one guidance and counseling teacher should guide all students in the school. Start from classes X-XII and for students with hearing impairment to students with mental retarded. Even when the classroom teacher was absent, Guidance and Counseling teacher replaces the classroom teacher in the classroom to teach. Because of that, the implementation of Guidance and Counseling program is not optimal, although it has been assisted each classroom teacher that are 6 people.

b. Lack of facilities and infrastructure
It can be seen from the Guidance and Counseling class that is still not optimal. Starting from the media until incomplete development logbook and individual guidance and counseling services. The implementation of Guidance and Counseling program for students often only given guidance without noted (recorded) which progress is.

c. Lack of coordination between of Guidance and Counseling teachers, classroom teachers, and principals.
Although in practice of Guidance and Counseling teachers sometimes helped by the classroom teacher, but coordination between of Guidance and Counseling teachers, classroom teachers and principals in SMALB Bina Citra Pati has not established intensively. This is evident from the lack of coordination of the principal, classroom teachers, and of Guidance and Counseling teachers in setting of Guidance and Counseling program for students. Sometimes Guidance and Counseling teachers must develop the program by himself. That's causing delays of optimal guidance and counseling to students.

d. The lack of evaluation of the implementation of Guidance and Counseling program for student with special needs in SMALB Bina Citra Pati
Evaluation of the implementation of Guidance and Counseling program for student with special needs in SMALB Bina Citra Pati still relatively very rarely done, even to say almost never carried out an evaluation. Guidance and Counseling program implementation in schools is limited only to come face to face with students who are in problems and give solution. After that there was no evaluation whether the process in solving problem is successful or not. Ideally Guidance and Counseling program should have notebooks (logbook) for each individual contains all the problems of the student, Guidance and Counseling program is given, and the evaluation process to monitor the progress and changes that have been experienced by students after being given guidance of their problem.
CONCLUSIONS AND RECOMMENDATIONS

Conclusion

1. Implementation of guidance and counseling program in SMALB Bina Citra Pati generally has been running well. It can be seen from the range of services provided include: Orientation Services, Information Services, Distribution and Placement Services, Career Guidance Service, Guidance Service, Individual Counseling Service. All services provided to the student with special needs by concern to each need, each characteristic, and the problems of students.

2. The method used in guidance and counseling program in SMALB Bina Citra Pati is good enough. There are some methods used in guidance and counseling program, among others: Interviews, directive method and non-directive method. However, the implementation of non-directive method is less optimal because it is lack appropriate with the student’s characteristic.

3. Overall, the implementation of guidance and counseling program in SMALB Bina Citra Pati is good enough. However, in certain aspects there is a lack/not appropriate, such as: lack coordination among guidance and counseling teacher, homeroom teacher and principal. SMALB Bina Citra also lack of facilities and infrastructure, and lack of evaluation of the implementation of guidance and counseling program in SMALB Bina Citra Pati.

Suggestion

1. For Principal
   It needs a review about management of guidance and counseling in SMALB Bina Citra Pati, it is related to the facilities and infrastructure that support the guidance and counseling program for students with special needs.

2. For guidance and counseling Teachers
   Guidance and counseling teachers should conduct an evaluation for every guidance and counseling program that has been given to students with special needs. This is to it easier in monitoring the success guidance and counseling program in solving problem students with special needs. Besides that, it is also needed a review about guidance and counseling program and should increase coordination with classroom teachers and principals. Guidance and counseling teachers should also be insensitive to the problems and needs of students by conducting need assessment. So they do not need to wait for the reports from teachers and students.

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BIODATA

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CRITICAL THINKING SKILLS OF ELEMENTARY SCHOOL STUDENTS THROUGH COOPERATIVE LEARNING MODEL TYPE NUMBERED HEADS TOGETHER (NHT)

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ABSTRACT
Learning in the present day needs to develop critical thinking skills of students as a provision lived in the days to come. The purpose of this study was to train primary school students' critical thinking skills. Learning is designed using the constructivist-oriented thematic modules that implemented the cooperative learning model type Numbered Heads Together (NHT) had been developed previously. The study population was Grade 5 students in the school curriculum pilot project in 2013 in the city of Ambon. The research sample involved 33 students of grade 5 of Elementary School 63 Ambon randomly determined randomly. Critical thinking skills of students were developed in the students by completing the form of essay questions in the study during 12 meetings. The results showed that the mean score of critical thinking skills of students on the theme of one sub-theme 1 is 45.79, and increased by 3.82% to reach an average score of 47.54 in the sub-theme 2. Thus, it can be concluded that the students' critical thinking skills that are in the moderate category. Future studies are needed to examine the effect of this learning model to the students' critical thinking skills. The researcher recommends that teachers should continue to familiarize students to think deeply by answering questions, and the courage to express arguments against high-level questions with logical and analytical thinking.

Keywords: Constructivist, Numbered Heads Together (NHT), critical thinking, logical

INTRODUCTION
The awareness of the importance of thinking skill in learning becomes one of the main issues to encourage the curriculum changing in Indonesia. In the previous curriculum (education unit level curriculum/KTSP), it is found that high order thinking skills were hardly ever been figured. The revision of KTSP, 2013 curriculum, is one alternative to develop the thinking skill of each education level and in any subjects. The education policy which was carried by the minister of education and culture of Indonesia was done to harmonize the education in Indonesia and global challenge. Ministry of Education and Culture of Indonesia (2012) stated that the study result of Program for International Student Assessment (PISA), which focused on literary works mathematics, and science, showed Indonesian rank which is 55 out of 65 countries. It is similar to the study result of Trends in International Mathematics and Science Study (TIMSS) which showed that the rank of Indonesian students are very low in terms of (1) comprehending complex information, (2) theory analysing and problem solving, (3) instrument and procedure usage, as well as problem solving, and (4) investigating. These facts emphasize the need of changing in curriculum orientation without burdening students with content but the essential ability aspects needed by citizens to actively participate in developing this country today and in the future.

One of living skill needed by students in the future is critical thinking skill. It is important to encourage students to be long life learners and help them to develop the 21st living skill living skill (Boyaci & Atalay, 2016). Critical thinking skill is an element of high order thinking skill which is essential for students in solving problems in daily life. Such skill is needed to make a decision. According to Costa (1985) cited by Wong (2007), such skill has 4 elements, they are: content (knowledge of subjects), procedural knowledge (thinking skill), ability to monitor and control the thinking skill (metacognition), and attitude to implement the knowledge and thinking skill. Many psychology cognitivists see critical thinking as a high order thinking skill, including analyzing, synthetizing and/or evaluating, it is different from low order
thinking skill such as knowing, understanding and/or applying (Kek & Huijser, 2011). According to Facione (2011), the most basic concept of critical thinking is the ability of interpretation, analysis, evaluation, inference, explanation, and self regulation. Hence, critical thinking skill is a key element needed by students to find and understand relevant information, associate it with the knowledge, reasoning, cognitive skill, explore it. A critical thinker is an individual who has high order thinking skill or an ability to think critically, analyze effectively, and be able to solve problems.

Critical thinking skill can be fostered to elementary school students. There are several reasons, (1) learning development occurs in a conducive interaction, which is attained through assimilation and direct adaptation. Florea & Hurjui (2015) stated that children build mental structure from the action internalization of objects. Through the object assimilation based on the scheme and adaptation, it will change the scheme itself. Results will be found after the assimilation and accommodation, and the comprehension comes after the process is balanced. A child is trying to find meaning of an incident, and an adult has a task to provide an exploration opportunity, mental encouragement, safety, and motivate the children’s knowledge development. The second factor is elementary school students experience concrete operational development stage based on Piaget (Niu, 2013). Therefore, the critical thinking skill is related to intellectual and environment potential. The critical thinking development as a process depends on the previous development.

Students can be motivated to use physical and intellectual capacity to actively interact to environment. Critical thinking can be implemented only if the school environment supports. It is in line with Fisher’s (1999) idea that in order to improve the thinking and learning process of a student, it is necessary to revise the learning environment, either in class, school, or in social community and family. Critical thinking skill can be implemented by students in learning activity through several instructional techniques. The techniques are implementing high order inquiry, authentic investigation, and small group learning (Terry, 2012).

As a manager implement a technique in a business, a teacher can encourage students to implement the technique through critical thinking skill. A teacher needs several learning models to control the duty and responsibility in learning. The main dimension need to be done by teachers is knowing that material is not the most important thing and the focus of leaning, yet it needs media that can foster critical thinking ability. Through self-thinking, teachers provide an opportunity to students to attain knowledge so that students can be success in the future. Gustin (2001) states that there are 3 important components in developing students’ critical thinking. First, teachers have to know their role as teachers. Second, teachers have to motivate and build students’ self-confidence. Third, students need a particular method or strategy in facilitating them to think.

Several learning models or strategies are suggested to help students to develop critical thinking ability. Lee et al (2016) claim that cooperative learning model is the answer. In cooperative learning, there are 2 people who learning something together. Cooperative learning include collaboration aspect that bring positive effect in critical thinking, without discarding some other important factors in learning. According to Dam & Volman (2004), cooperative learning, which involves group discussion activity can improve students’ ability or competence of thinking critically, as well as promote them to enhance the high order skill and reasoning strategy. Cooperative learning model, NHT is able to develop critical thinking skill. Hunter et al (2016) explain the procedure of NHT, they are: dividing groups, numbering, raising questions, thinking together, and answering questions. In raising question stage, there is an individual thinking process which is done by each member of groups to solve problems. After that, the students have to think together and share information, opinions, feedbacks based on the individual activity.

Up to date, the learning pattern in elementary schools tend to be individual and behavioristic, hardly ever learn about high order thinking level. Therefore, it is necessary to foster students to develop their critical thinking skill through NHT which is considered easy for elementary school students. The students’ interaction can relates students to think, deliver ideas, and make an appropriate decision to solve problems. It is expected that this learning model can
provide information related to students’ thinking development in theme based learning consistently.

**METHOD**

This study was a descriptive study which was done to examine the development of elementary school students’ critical thinking in Ambon, Mollucas. This study was conducted in August-October 2016 in Elementary School 63 Ambon. The participant of the study were 25 students who were divided into 5 groups. Each group consisted of students who have various academic ability, beginning from high, moderate, and low. The students also have different social, economic, and cultural background. The grouping were done in order to build students’ interaction. The grouping based on the students’ academic ability was based on the pretest result, homeroom teacher’s consideration, and the students’ previous learning outcome. Each group consisted of several male and female students, who have different academic ability, economic, and ethnics.

The students used class V theme based learning module which was constructed to foster critical thinking ability. The module has been integrated with procedure of NHT, validated by experts, and tried out. The learning implementation followed the NHT procedure which was integrated in the module. The procedure included the apperception, the learning objectives, the learning materials (observe, read, count, try), grouping and numbering, raising questions, think, and answer. After observing, reading, counting, and trying, the students tried to answer the related questions. It is aimed at obtaining the students’ responses towards the theme based material learned. In the raising questions phase, each student tried to answer the questions given based on their head numbers. In the think phase, the groups discuss the tasks given to each member, so the group could make a deal or a decision of the tasks. While in the answer phase, the teacher pointed at head number of a group randomly to answer the question or solution.

The questions which were aimed to develop the students’ critical thinking were constructed by the researcher by considering the critical thinking indicators referring to the critical thinking skill domain (Facione & Facione, 1994) in form of essay test. The critical thinking skill domain are: interpretation, analysis, evaluation, and explanation. The implementation of NHT was done during the learning of theme 1 (objects in surround environment), sub theme 1 (objects in family) and sub theme 2 (objects in school). Each sub theme consisted of 6 learning materials, so there were 12 learning materials.

**FINDINGS**

The summary of the students’ critical thinking skill of each group in sub theme 1 and 2 (12 meetings) is presented in Figure 1 and Table 1.
Table 1. The Average Score of Critical Thinking Skill in Subtheme 1 and 2

<table>
<thead>
<tr>
<th>Groups</th>
<th>Sub Theme 1</th>
<th>Average</th>
<th>Sub Theme 2</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>56 48 42 39 56 73</td>
<td>52.3</td>
<td>54 56 53 59 75</td>
<td>58.7</td>
</tr>
<tr>
<td>2</td>
<td>22 27 25 22 59 59</td>
<td>35.7</td>
<td>27 36 36 22 40 38</td>
<td>36.7</td>
</tr>
<tr>
<td>3</td>
<td>36.3 46.3 28.8 42.5 71.3 68.8</td>
<td>49</td>
<td>51.3 43.8 43.8 30 41.3 58.8</td>
<td>45.2</td>
</tr>
<tr>
<td>4</td>
<td>36 47 37 28 54 71</td>
<td>45.5</td>
<td>54 46 46 58 53 62</td>
<td>51.2</td>
</tr>
<tr>
<td>5</td>
<td>29 50 35 38 63 64</td>
<td>46.5</td>
<td>56 53 53 23 56 40</td>
<td>46.0</td>
</tr>
</tbody>
</table>

Figure 1 and Table 1 show that the interval of the students’ critical thinking average score in sub theme 1 and sub theme 2 are 35.7-52.3 and 36.7-58.7. The lowest score is the low critical thinking skill level, while the highest score is the moderate critical thinking skill level. The data also describe the difference or fluctuative of each group’s critical thinking skill. Thus, it is found that group 1 obtained higher average score of critical thinking skill compared to other groups, while the lowest average score was obtained by group 2. This condition was still the same in the sub theme 2 learning. The average score of the highest critical thinking skill during the learning was 25 (high level) and the lowest score was 22 (low level). The average score of sub theme 1 was 45.79 and increased by 3.82% or 47.54 in sub theme 2. The result showed that the elementary school students’ critical thinking was in the moderate level.

Figure 2 describes that the average score of the students’ critical thinking skill in sub theme 1 and 2 is not significantly different.

DISCUSSION

The research findings reveals that the students’ critical thinking skill using NHT cooperative learning model in learning sub theme 1 and 2 was considered moderate. It means...
that the students’ critical thinking skill are moderate in general. The result of this study is in line with Leasa & Matitaputty (2015) which revealed the level of students’ critical thinking skill in interpretation and analysis indicators, which was moderate, while in evaluation and explanation indicators was low. So, it can be concluded that students’ critical thinking skill is moderate.

Some teachers said that by teaching critical thinking through NHT, students might use to think deeper, analytically, and be able to solve problems. This information is interesting and can hardly be found in learning activity. Such information shows that there is a change in students’ thinking pattern from simple level to complex. This reality is supported by Denham (1991) that whenever a child moves his/her way of thinking, they tend to show the highest capacity improvement (the upper boundary of complexity skill that can be controlled). The optimal performance of a student can sometime be improved, or show a great leap when he/she moves to a new level.

Critical thinking skill cannot be obtained instantly, yet it needs intellectual self-discipline (Caydar & Doe, 2012). Critical thinking can be trained to make it reflexive. Hence, it needs to be a habit through learning process that can develop the critical thinking itself with teachers’ help. At least, school can facilitate the teachers to prepare learning materials, learning media, and conducive learning environment. School can also encourage students by involving parents and other parties in creating the students’ thinking process. Teaching critical thinking skill for elementary school students needs specific effort, moreover when it is related to students who are lack of ability. A very simple question can be a boomerang and cause some confusion and pressure for them. In this study, the teachers kept guiding the students, especially to those with low academic ability. This guidance also acts as motivation and facilitate the students to solve their learning problems.

The result of this study shows the fluctuate average score of the students’ critical thinking during the learning activity as presented in Figure 2. In the initial learning, the students adapted to the strategy. In the next learning, the students faced more complex tasks so they seemed more stable or even decreasing. In the last learning session, the students had their strategy in doing thinking tasks, so the graphic tend to increase. The previous learning trained the students to prepare themselves to be better at thinking, even though it was not perfect, yet it was better than before.

Related to Figure 2, there was a question that emphasize the average score of the students’ critical thinking skill in sub theme 1 and 2 which tends to be the same or only increase 3.82%. Based on the fact, it is caused by several reasons. First, it is related to the students’ academic ability, especially those who have low academic ability. Low academic ability students faced some difficulties in answering the essay questions. The limited thinking ability in reading or repeating the obtained information. In mathematics, they needed to be escorted to understand the materials. For example, some students who are able multiply it is easy to do some exercises in faktor persekutuan terbesar (FPB) material, while for some others who cannot do multiplication activity, it is difficult, so that they cannot do the exercise quickly. In learning, teachers gave several examples, yet the low academic ability students need some more consideration. Such students need personal guidance in learning by teacher or peers. In the increasing graphic, it can be seen that the group member can make high scores. While in the decreasing graphic, it can be seen that the students respond negatively in the group performance.

Zohar & Dori (2003) explained that a complex understanding comes due to the fulfilment of basic accumulation of learning prerequisites. After the students comprehend a new content in the level of recalling information, they might involve themselves in a higher cognitive level. This concept means that problem solving activity involves high order thinking process which is considered as the highest hierarchic thinking in learning. Thus, the low ability students face some difficulties in doing activity which activate their higher thinking skill, because they do not master the simplest information. While the high ability students with higher academic ability can reach the highest hierarchy since they comprehend the basic skill and are ready to do complex cognitive tasks.

The students with high academic ability are able to correct their mistakes rather than those who have lower critical thinking ability. These students need more help to overcome their misconception. They also face some confusion in doing cognitive tasks. The students with lower
critical thinking skill tend to focus on obtaining correct answer without understanding the reasoning or the thinking process in obtaining the answer (Deal & Pittman, 2009).

The average score of the critical thinking skill in sub theme 1 and 2 is considered moderate. Through NHT cooperative learning model, teachers are trying to train the students to develop their thinking process, and this is called as learning. Haydon et al (2010) stated that NHT is a learning strategy that is very helpful, easy to be implemented, and able to improve students’ thinking process and learning outcome. It can be seen from the quiz scores improvement of the students who experienced NHT, even though the involved subjects were lack of intellectual and emotional ability. Learning through NHT is something interesting and can motivate the social competency. In NHT, the students obtained some help from peers. Not only some help but also direct interaction which enables the students’ sharing process. Theme based learning in elementary school enables the students to think critically towards all integrated materials. The essence of learning using NHT needs to be implemented, especially when student get their tasks. The students’ sense of responsibility will appear if they are willing to do the tasks based on their ability. Yet, there are some students who cannot do the task appropriately due to the lack of ability which then makes them be passive and lack of self-confidence. Therefore, teachers are expected to be able to keep an eye on their low academic ability students, so that the students can be responsible and actively participated in complex cognitive learning process.

CONCLUSION

The difference academic skill is an inevitably phenomenon in learning activity, especially in NHT cooperative learning model. Students’ awareness and responsibility as learners is the components that support the development of critical thinking skill. The challenge in learning critical thinking to students is the lower of students’ academic ability, which makes the students analyze, argue, and think passively. However, students’ collaboration in a heterogeneous group can improve the students’ critical thinking skill to moderate level. NHT is one of the cooperative learning models that can develop the students’ critical thinking skill individually and in group, in which students are expected to contribute their thoughts, analysis, and logic. Therefore, teachers need to know the students’ learning difficulties, and try to provide additional course or matriculation. It is aimed at balancing the basic skill and affects the students’ comprehension in solving complex learning cognitive tasks.

REFERENCES


**Author's Biodata**

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ABSTRACT
This research is to assess the influence of the power of two technique with media photojournalism in learning to write news and learning without the power of two technique with media photojournalism in learning to write news. To know the effectiveness of the learning the power of two technique with media photojournalism in learning to write news and learning without technique the power of two with media photojournalism in learning to write news. The power of two technique is study in small groups with build maximal cooperation through learning activities with their friends with members group consist of the two people in it to achieve basic competence. This research using true-experimental techniques to make pottest-only group design. Data taken for this research based on a questionnaire and a test sheet. Population taken as students of Indonesian Education Department and Indonesian Literature in 2012, while the sample using two classes namely class A and C. From the results of the questionnaire can be seen that the learning outcomes by using the power of two with media photojournalism can assist students in writing news. Based on test results using the power of two technique with media images in writing news, class has an average value of 8.97 for experimental class and control class 6.53. So, it can be concluded that the technique of the power of two with media photojournalism in learning to write news and learning without the power of two technique with media photojournalism in learning to write news has completed the minimum passing standard.

Key Words: the power of two technique, journalism photo, writing news

INTRODUCTION
Learning journalism courses is one of the elective course but to be important aspects that need to teach to students of Indonesian education department. In journalism learning students are expected to master, understand and implement the written term skills. The journalism course is taught in even semester. One of the subject in jurnalistic material is writing news. Writing news is the one of obstacle for the students. Students are not accustomed to writing and do not have Indonesian vocabulary so much so that is why in each semester the obstacle which face the students it is quite same as the obstacle to write the news. Other than, the student’s insensitivity with the surrounding environment. So, it is needed learning model which appropriate with that problem.

Trianto (2010:53) states that for choosing learning model is influenced with characteristic of the material to be taught, also influenced with the objectives to be achieved in that learning and the ability of the students. Other than, each learning model always have steps (syntax) which done by students and guidance of lecturer. Rusman (2010:136) states that learning model has characteristics likely, 1. Having mission or objectives of specific educational. 2. Can be guidance for upgrading in teaching learning process in the class. 3.
Having parts of model named sequence steps of learning (syntax), there are reaction principles, social system, support system, have an impact as a results of applied learning model. These impact include 1. The impact of learning is learning results that can be measured. 2. The impact side is the results of long-term learning. In the create teaching preparation (design instructutional) with guidelines learning model is chosen. It determines the characteristic of the learning model above can help the lecturer to design a learning model, which will be implemented by the lecturers during the teaching learning process in the class.

Based on the above, the researcher need learning model to solve the problem. Researcher chose the learning model to increase writing creativity better than before with learning model The Power of Two with media pictures in order to can be helped the students write a story and make an active student in the class. Therefore, the researcher raised the title “THE INFLUENCE OF THE POWER OF TWO TECHNIQUE WITH MEDIA JOURNALISM PHOTO IN LEARNING WRITING STUDENT'S NEWS OF INDONESIAN EDUCATION DEPARTMENT AND INDONESIAN LITERATURE OF ADI BUANA UNIVERSITY SURABAYA”. The problem in this research is how the effect of differences learning technique the power of two (both strengths) with media photojournalism in learning to write the news, with learning without technique the power of two (both stregths) with media photo journalism in learning to write news.

REVIEW OF LITERATURE

The learning model is a plan or a pattern which is used as a guide in learning in the class. Learning model refers to the learning approach that will be used, including the purposes of teaching, the steps in the learning activities, learning environment and class management. (Arends in Trianto, 2010:51). The learning model is a conceptual framework that describes a systematic procedure for organizing a learning experience to achieve specific learning objectives and serves as a guide for learning designers and lecturers in designing and implementing the teaching learning process. To choose this model is strongly influenced by the nature of the material to be taught, and also influenced by the aim to be achieved in the teaching and the level of ability of learners. In addition to that, each learning model also has steps (syntax) that can be done by students with the guidance of the lecturer. Between syntax with each other syntax also have differences. These differences, including the opening and closing of learning is different between one another. That is why, lecturers need to understand and can apply various teaching skills, in order to achieve the learning objectives and diverse learning environment that characterizes today’s school.

According to Kardi and Nur in Trianto (2010:142) term of learning model has a broader meaning than the strategies, methods or procedures. The specific characteristics of the learning model 1) rational logical theoretical compiled by the creators or developers. The learning model has a plausible theory thinking. That is the creator or developer create theories by considering the theory with actual reality and not fictitious in creating and developing it, 2) the rationale of what and how students learn (learning objectives to be achieved). The learning model has the clear objective of what will be achieved, including what and how students learn well and learning how to solve a problem, 3) the behavior of teaching required so the model can be implemented successfully. The learning model has teaching behaviour is required so what the aim of learning can be achieved, 4) learning environment necessary for learning objectives can be achieved. The learning model has a conducive learning environment can be one of the supporting aspects of what has been the aim of learning.

One of learning is cooperative learning. Cooperative learning is the efforts made by a lecturer to teach students through a tangle of cooperation amongst students, the cooperation with the school, working with a family member, working with the community (Solihatin and Raharjo, 2009:4). According to Johnson & Johnson (in Isjoni, 2011:17) cooperative learning is to classify students in the class in a small group so that students can work together with a maximum capacity they have and learn from each other in the group. Cooperative learning is a teaching strategy that implements clustering/small group, which have background of academic ability, gender, race, or ethnicity were different (heterogeneous). The scoring system is done for
the group. Each group will obtain reward if the group is able to demonstrate achievement which is required. So, in each group member will have positive dependence. So, the essentially cooperative learning is a learning activity which is undertaken by students in small groups in a class that does not discriminate the background of ability or gender, with the aim of teaching students through alliances among these various components.

The main principles of cooperative learning 1) the group award, which will be given if the group reaches the specified criteria, 2) individual responsibility, means that success depends on the individual achievement of all group members, 3) the same opportunity for success, means that students have help groups in their own way. Cooperative learning can be said to successful depends on the work of each individual group. Not only suspended in one person in a group, is not only the leader of the group who take responsible for the task of group. All members must have responsibility that the group’s aim can be achieved. The group which successful tho reach the criteria that have determined will get group award. Rusman (2011:11) the steps of cooperative learning 1) convey the objectives and motivate the students. Lecturer convey all the learning objectives to be achieved in these lessons and motivate students to learn, 2) presenting the information. Lecturers present information to students with use demonstration or through reading materials. Lecturers organize students into cooperative groups. Lecturers explain to the students how to make study groups and help each group to make transition efficiently, 3) guide the study group during the students do the tasks, 4) Evaluation. Lecturers evaluate learning results of the material that has been learned or each group presented their work. Lecturers find the way to appreciate the efforts or the learning results of individuals and groups. Steps in the cooperative learning should be understood by the lecturer, because in cooperative learning the lecturer foster the cooperative course to reach the aim is also expected that all students are really enthusiastic to work together in groups. Lecturers should always monitor every steps of cooperative learning activities. Lecturers also need to encourage students to conclude the group’s task result together, evaluation and give award. In this research, the method used in cooperative learning which is used learning method of the power of two in order to can maximize the students to increase academic achievement both individually and in groups. The power of two means to combine the strengths of two people. Combining the power of two people in this case is to make small groups, each group consisting of two. This activity is carried out in order to appear synergy, two or more people is better than one person (Sanjaya, 2008:52). Activities learning the power of two is used to encourage cooperative learning and reinforce the importance and benefits of the synergy of two people. This method has principles that think with two person are much better than think for oneself. This method is the same as other cooperative learning methods, practice the learning method of the power of two begins with the lecturer asking questions. With these questions for the first time conducted the students to do by individual. After completing all the answers, students are asked to find a partner or sit in pairs according to the pairs who have determined, 4) lecturer ask each pair make a new formula as a result of the combination with their partner, 5) after all the pairs completed to answers that have been discussed within the group and then the lecturer ask or order to each group to present the results of their discussion to the front of lecturer and students discuss the results of presentation of all group to fix answers and concepts still are not clear.

In carrying out the steps in the methods of the power of two these students do not directly come together with their group or their pairs. First, they must do the work individually. After individually and then the students gathered with their partner. It is intended that they really understand the group’s task individually and do not dependence or rely on other group members.
In each learning method always has some advantages and disadvantages in it. As well as learning methods The Power of Two this matter also has some advantages and disadvantages. 1) Advantage Learning Strategies The Power of Two by Djamarah and Aswani, (2006:17-18) as a method of learning, the learning method the power of two have several advantages such as: a) is not too dependent lecture, but can add confidence in their ability to think for themselves, find information from various sources and learn from other students, b) develop the ability to express an ideas with words verbally and by comparing the ideas of others, c) help children to work together with others and realize all its limitations and accept all their weakness, d) helps students to be more responsible in performing their duties, e) improve motivation and stimulate to think, f) improve academic achievement well as social skills. The weakness of Learning Strategies The Power of Two like, a) sometimes can happen their views from various angles for the problem is solved, maybe even conversation becomes distorted so it takes a long time, b) with the division of the group in pairs and sharing among couples making less conducive learning, c) with the group, students who are less responsible in the tasks, making them rely more on their partner so they just play around on their own without doing task.

In the implementation of the method of learning the power of two there are some aims that must be achieved among which are 1) familiarize the active learning of individuals and groups (study together can make more memorable), 2) to increase collaborative learning, 3) that the students have problem-solving skills related to the subject matter, 4) minimize the gap between one student to other.

RESEARCH METHOD
This research is true-experimental research with research design postest only control group. The research variable consist of independent variable is the type of learning model the power of two with media photo journalism and the dependent variable is writing news. The location which is choosen by the researcher to do this research application of learning model type the power of two with media photo journalism in student of Indonesian Education Department University of Adi Buana Surabaya. Campus is located at Ngagel Dadi street III-B/37 Surabaya. Shape design of the study as follows.

<table>
<thead>
<tr>
<th>R</th>
<th>O2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX</td>
<td>O4</td>
</tr>
</tbody>
</table>

Note:
R  : Experimetal group and control group are taken random
X  : First group is given treatment
O2 : Group which is given treatment
O4 : Group which do not given treatment (Sugiyono, 2013:76)

Population and Sample
Population in this research is the university students generation 2012 with 4 classes and consist of 120 students. Sampel in this research is convenience. Sample with a group that has been formed naturally. In this research, two classes are choosen by lottery technique that is used as a sample for experimental class is Aclass totaled 38 and as controls class is C class totaled 38.

Time and Place Of Research
This research was conducted in March until July 2016. Teaching time there were three times meeting with the students in each class. The place of this research was in the Faculty Of Teacher Training And Education, Major: Indonesian Education Department, University of Adi Buana Surabaya. Campus is located at Ngagel Dadi street III-B/37 Surabaya.

Instruments of Research
Instrument or data collection tool to be used in this study as follows
Questionnaire sheet
Student’s questionnaire sheet for technique The Power Of Two with media journalism photo in learning to write news using Likert scale in the checklist form.
Test sheet
Test which is used in this research is students write a news with media journalism photo with pay attention the elements of news such headlines, news patio/leads, news agencies and cover.

**Data Collection Technique**
In this research, the data will be collected with the technique as follows

**Questionnaire**
In this research, respondents were given a questionnaire instrument which contains a list of questions must be answered and responded.

**Test**
Test conducted in this research were the students write a news with media journalism photo with pay attention the elements of news such headlines, news patio/leads, news agencies, and cover.

**Data Analysis Technique**
To answer the statement of problem will be used analysis of teaching learning process activities which include the following things

**Questionnaire**
To calculate the percentage of questionnaire data, using the following formula.

\[
P = \frac{F}{N} \times 100
\]

Note:
- \( P \) = percentage achieved
- \( F \) = Frequency (the respondent’s answer to one of the alternative answers)
- \( N \) = Number of respondent

**Test**
Data in the form of student’s results were analyzed based on the reach indicator achievement which have been determined before. Students are said completed in the students learning to write news to the media journalism photo when every students get a conversion value of at least 2.33 or predicate C or > 2.33, this analysis technique using calculation of the percentage of success or achievement of students in writing news with technique The Power of Two technique. Calculation to know the students learning results as follows.

\[
\text{Mean} = \frac{\sum fx}{N}
\]

Note:
- \( M \) = mean (score average)
- \( \sum fx \) = total of score of students
- \( N \) = number of respondent in each distribution

**RESULT AND DISCUSSION**
Result of data analysis

**Questionnaire**

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer option</th>
<th>SS</th>
<th>S</th>
<th>KS</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are you happy joining in the teaching learning process activities journalistic writing news using technique <em>the power of two</em></td>
<td></td>
<td>35</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td><em>the power of two</em> technique easy to application</td>
<td></td>
<td>38</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Choosing technique the power of two is appropriated for matter writing news</td>
<td></td>
<td>36</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td><em>the power of two</em> technique make you interest to join in learning journalistic</td>
<td></td>
<td>35</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
The power of two technique can help you to write news  

Do you feel easy to write news using technique the power of two.  

Writing news is the one subject which advantage for journalistic world  

What do you think? Do you agree if technique the power of two is using for next learning to write news?  

Note:  
SS: strongly agree,  
S : agree,  
KS: less agree, and  
TS: disagree  

Result of the questionnaire will be given to each students after the teaching learning prosccess. Questionnaire which have been given is the close questionnaire that contains eight questions. Based on the calculation result of questionnaire, can be conclude that technique the power of two with media journalism photo in learning to write news have influence in teaching learning activities.  

Test  
Test which is used for this research is students write a news using technique the power of two and pay attention pay attention the elements of news such headlines, news patio/leads, news agencies, and cover.  

Tabel 5.2.1 Result of Test Using Technique The Power Of Two with Media Photo in Learning Writing News at Experimental Class  

<table>
<thead>
<tr>
<th>No</th>
<th>Student Name</th>
<th>Aspect Scoring</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td>2 3 2 3</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>EFK</td>
<td>2 2 2 4</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>GAM</td>
<td>1 3 3 3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>ILK</td>
<td>2 2 1 2</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>HN</td>
<td>1 3 3 3</td>
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</tr>
<tr>
<td>6</td>
<td>NA</td>
<td>1 2 1 4</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>LAM</td>
<td>1 3 3 3</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>WDY</td>
<td>1 3 2 2</td>
<td>8</td>
</tr>
<tr>
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<td>1 3 1 3</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>SDN</td>
<td>2 3 1 3</td>
<td>9</td>
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<tr>
<td>11</td>
<td>DM</td>
<td>1 4 1 2</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>DTR</td>
<td>1 3 1 4</td>
<td>9</td>
</tr>
<tr>
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<td>2 2 3 3</td>
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</tr>
<tr>
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<td>W</td>
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</tr>
<tr>
<td>15</td>
<td>J</td>
<td>1 2 1 3</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
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<td>1 3 3 3</td>
<td>10</td>
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<tr>
<td>17</td>
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<td>1 3 1 3</td>
<td>8</td>
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<td>1 3 2 3</td>
<td>9</td>
</tr>
<tr>
<td>19</td>
<td>YS</td>
<td>1 1 2 3</td>
<td>7</td>
</tr>
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<tr>
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### Tabel 5.2.2 Result of Test Using Technique *The Power Of Two* with Media Photo in Learning Writing News at Control Class

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</table>

From both table above is the learning results of students in experimental class and control class. Experimental class is the class which get a treatment technique *the power of two* with media journalism photo in learning to write the news, whereas, control class is the class which do not get treatment technique *the power of two* but still get media as journalism photo in learning to write the news. The results which appear from both of the table above, the experimental class get higher score with average score 8.97 than control class get average score 6.53. So can be conclude that technique *the power of two* has influence in learning to write the news.
DISCUSSION

Based on this research influence of technique the power of two with media journalism photo in learning to write the news and the learning to write the news without technique the power of two with media journalism photo, researcher find some things in this research. First finding is application of technique the power of two with media journalism photo in learning to write the news, in a group students can write the news together with have satisfy results. Then the second findings is learning without technique the power of two with media journalism photo in learning to write the news with the less satisfy results. The third findings, quitionnaier’s result which have been done by the students about the research of the influence of the power of two technique with media journalism photo in learning to write the news, students look so enthusiastic to join the learning activities.

In the proccess of technique the power of two with media journalism photo in learning to write news, a) giving a chance to students to encourage their potential which the students have so they can be active in the teaching learning process activities, b) students can critical thinking and creative to write information and news, c) helping the students to work efectively in the groups, d) build the cooperation well in the groups. Data from the result of students assessment has average score 8,97 for experimental class and for control class 6,53. So technique the power of two with media journalism photo in learning to write the news has influence in the final result of students than the learning without technique the power of two with media journalism photo.

CONCLUSION

Based on the theoretical and supported by data analysis of research instrument result, so, can be conclude 1) the quitionnaier’s result which have been done by the students about the responds of technique the power of two which is used in learning to write letter is known that most of the students who strongly agree because make easier in learning process. 2) the results of using technique the power of two with media journalism photo in learning to write the news has average score of experimental class 8,97 and for the control class 6,53. So, can be conclude that technique the power of two with media journalism photo in learning to write the news has influence in the final result of students than the learning without technique the power of two with media journalism photo.

Suggestions

In order to contribute thoughts about learning technique the power of two (two streights) with media journalism photo in writing news. Sugestion in this research are 1) researcher, preferably the researcher more try and apply the various of learning technique, 2) lecturer, preferably the lecturer using many various learning technique to make easier the students in learning activities, 3) students university, preferably the students who contribute in learning activities which using learning technique should be active and enthusiastic so that, learning process will run optimal.

REFERENCES


BIODATA

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ABSTRACT

Indonesia is geographically located at the confluence of tectonic plates, the conditions have resulted in the high incidence of natural disasters. Ngrimbi villages, Bareng subdistrict, Jombang Regency in 2014 experienced a landslide disaster. This incident resulted in deaths of 14 people, dozens of homes were buried under rubble soil. Society as an object affected by the disaster need basic knowledge in the management of disaster risk, efforts should be made early by integrating policies and technology-based education in schools as a medium for knowledge transfer. In order to reduce the risk of disaster, we must teach the identification and mitigation technologies. We would prefer to choose a wind farm identification and capture of wind energy as a renewable energy potential for the discussion. This type of research was quantitative descriptive spatial analysis (transects) and scoring analysis. The variables include education, policy, technology, and disaster. The survey results revealed that the relationship between the variables of educational services with the Policy is 0.362. This shows the positive relationship which means the greater the value of the policy the higher the value of service education. While the results of the analysis of community preparedness of disaster events showed 0.386. This suggests that there is a positive relationship between preparedness of society towards disaster.

Keywords: policy, education, technology, disaster

INTRODUCTION

Indonesia is one country that is categorized as a disaster-prone, even referred to as a laboratory of disasters in the world because almost all kinds of disasters in the State of Indonesia such as floods, earthquakes, tsunamis, volcanic eruptions, landslides, droughts, forest fires, tornados, epidemics and failure of technology (Shofwan, 2015). Based on data collected by the National Disaster Management Agency recorded from January until the month of September 2016 there are 1,707 events, 411 people die and disappear, the victim suffers and there are 2,214,256 displaced people, as well as damage to the settlements there are 25,578 units (http://dibi.bnpb.go.id/, 2016). The data illustrates that the level of disaster risk potential in Indonesia is very high. Village Ngrimbi, Subdistrict Bareng, Jombang district is one of the areas of disaster risk potential is high. The most disastrous events occurred in this region is the landslide that occurred in 2014 so many became casualties included the destruction of neighborhoods and psychological burden.

The government as the party that has the authority to make regulations specifically related to disaster risk reduction is expected to provide disaster risk reduction policy that micro scale. Based on Chapter III of Article 6 of Laws Number 24 of 2007 one of which mandates that the responsibility and authority possessed in disaster risk reduction and integrating disaster risk reduction into development programs and the protection of society from the impact of disasters. Disaster risk reduction policies are periodically micro them are providing socialization disaster-prone areas, improve the preparedness of the community, providing knowledge of disaster response when disaster strikes, giving insight into the way of prevention and mitigation areas.
with the potential risk of disaster, and include material disaster in the learning curriculum of students in school.

Education as a vehicle for scientific improvement should certainly be able to provide answers to the catastrophic event, set school curriculum should be able to include a discussion of the insights of technology-based disaster course so that students generally able to anticipate when there is a risk of disaster in their area. So far in areas distant from the center of policy making we still see in the handling of disastrous events that are responsive not least, there has been no attempt educative micro-society, especially people who held a disaster-prone region.

**POLICY**

Laws number 24 of 2007 has been set on disaster management in Indonesia. Disaster management policy is a result of the formulation of a variety of catastrophic events, especially in Indonesia either by natural disasters, bencena non-natural, and social disasters. The initial process in spatial planning policies based on disaster mitigation to do with the determination of disaster-prone areas, especially by analyzing the nature, characteristics, and environmental conditions of an area. Currently the concept of disaster mitigation undergoing a paradigm shift from conventional towards holistic namely to move away from emergency assistance towards a paradigm for mitigation / prevention, and as well as the development paradigm. Initially regarded as a disastrous fate alone, where humans are submissive and did not have a significant role and contributions related to the disaster. Furthermore, this view is shifted in a more scientific perspective and scientific (Muta'ali, in Shofwan, 2014).

**TECHNOLOGY-BASED EDUCATION**

Education is the art of teaching because teaching knowledge, skills and specific experience, people going to do something creative. Educating is not merely technical, methodical and mechanical skills to children but it is high-dimensional and nuanced art element, dedication, emotional, affectionate in building and shaping the personality. Named education guided by a sense of humanity, sympathy, and love (Jumali, in Septiana, 2014). According to Laws Number 20 of 2003 on the national education system say that the curriculum is a set of plans and arrangements regarding the content and learning materials as well as the means used to guide teaching and learning activities. The curriculum has two first aspect as guidance by the teacher teaching and learning process and both the content and settings of that work, which are both used as an effort to achieve national education goals (Suharjo, in Septiana, 2014). In the framework of disaster risk reduction, the State of Japan is one country that should be an example in the policy of disaster risk reduction (DRR), mastery of technology is well supported with a high interest in learning easier for the Government of Japan in disseminating disaster risk reduction measures. Children have been taught from an early age in the face of disaster risk preparedness. Japanese children have been given the provision of science that territory classified State high risk of disaster, especially earthquake and tsunami, this course is a good preparation so that when disaster strikes children or people already have preparedness.

To reduce the risk of disaster one of which required an understanding of the causes of the disaster as an example of identification is the identification of the wind as the beginning of the introduction of disaster preparedness. The result of this identification will get wind speed data at the points of installation of turbines as wind farm (wind farm). The wind potential maps can have multiple benefits; such as the basis for calculating energy potential is certainly much needed by the various parties and other benefits for weather forecasting, especially on the strength of wind gusts, so this can be a potential force for forecasting community territory. This has been done RDFernandez, RJMantz, PEBattaiotto, [1] in his research on the potential of wind energy by wind lading in Argentina.

Wind energy has the value of the Amount and formula as shown in equation (1), namely;

\[
P = \frac{1}{2} \rho A C_p v^3
\]

With the value of \( P \) is the power possessed by the variable winds moving air density \( \rho \), wind trajectories cross-sectional area \( A \), factor power coefficient \( C_p \) and \( v \) wind speed. The
wind power capacity will come by mapping magnitude is very important in two massive torque split into three by the magnitude of the wind that blows.

The first value is the speed above 20 m/s which led to catastrophic storm. And besides causing a storm there is the wind speed that can be used as a power plant technology is speed between 5 m/s to 20 m/s. And the speed that I can not take power as a powerhouse of speed below 5 m/s.

RESEARCH METHODS

Research Design
This type of research that will be used is descriptive quantitative spatial analysis, and analysis of scoring, in this study a quantitative method more emphasis on data obtained from the variables that have been determined in this study, while the variable using this method is education, policy and disaster.

Method of Collecting Data

Primary Survey
The primary survey is a method of data collection is done directly, primary survey is needed to better understand the basis of the existing conditions in the study area based on variables specified in the primary survey data needs. In this study, data collection through a primary survey, conducted by the method of observation of direct observation in the field, to get a clear picture of the variables in the research area.

Triangulation Methods
Triangulation method is an approach to data analysis that data from various sources, triangulation looking for quickly testing the data that already exists in the interpretation strengthen and improve policies and programs based on evidence that has been provided.
This method uses test information by collecting data through different methods by different groups and in different populations, the discovery may show evidence of placement of data traffic, reduce the impact of the irregularities of potential that can happen in a single study, triangulation together information from quantitative and qualitative research includes prevention and awareness program data and make use of expert judgment (Bahri, 2010).

Analysis Method
The method used is quantitative method that can be interpreted as a method of research that is based on the philosophy of positivism, is used to examine the population or a particular sample. The sampling technique is generally done at random, data collection using research instruments, quantitative data analysis/statistics with the aim to test the hypothesis that has been determined (Sugiyono, 2012).

Scoring Analysis
Scoring analysis method is a method of giving a score or value to each parameter value to determine the level of ability (Sholahuddin, 2015). The variable measurement using a measuring instrument that is the formula Sturges. Sturges formula aims to determine the class interval used in data (Darmadi, 2012), Sturges formula is as follows:

\[ I = \frac{r}{k} \]

Where: \( I \) = class interval

\( R \) = range (the difference between the largest to the smallest value)

\( K \) = number of class intervals

Spatial Analysis
Spatial analysis is a set of techniques that can be used in data processing GIS (Geographic Information Systems), spatial data analysis is highly dependent on the location of the object in question (being analyzed). Spatial analysis can also be interpreted as the techniques used to examine and explore data from a spatial perspective, all of the techniques or approaches
mathematical calculations related to spatial data (spatial) performed by the spatial analysis functions.

RESULTS AND DISCUSSION

Physical Condition Village Ngrimbi

Geographically Ngrimbi Village is a village located in the district of Bareng Jombang, East Java Province is located in southern Jombang, which has the region characteristic hilly areas and some plains. Ngrimbi village has an extensive area of 405.159 hectares of the total area is 64,05 km² Subdistrict Bareng, precisely at the coordinates 6°50'16” to 6°51'57” LS and between 112°29'52” of up to 112° 30'8” BT and has boundaries:

North : State Forests
West : Penggaron Village, Jombang
South : Ngemble Village, Jombang
East : Pulosari Village, Jombang

(Source: Rural Profile Ngrimbi, 2016)

Ngrimbi village is divided into four region namely Ngrimbi, Kopen, Mutersari, and Dadirejo. And This village has 4 RW and 17 RT.
The landuse in the village of Ngrimbi namely rice cultivation by 50%, the fields by 29%, and settlements and plantations that have the same area, namely 10%. Buildings in the village Ngrimbi only 1% of the total area and it can be concluded that this village is still rural areas with agricultural potential wider.

**Transect Village Ngrimbi**

The transect is a depiction of village beside the village, in the village transect described the topography of the village and its components. Transects the village used to map the condition of the village or face vertically in order to recognize the potential to represent an area that could be concluded for further actions that need to be done on a village. Transects conducted by down the main street of the village and record all types of buildings or land use that represents a particular area. This was done to determine the potential map of the village and the village as a whole a general description. The following description of transverse (transects) Village Ngrimbi:

![Diagram of Transect Village Ngrimbi]

among other things of taps and water wells. The problems faced by Kopen is prone to landslides because of steep topography and is located in the hills. Empowering communities in the Kopen is PKK and Karang Taruna and entered the territory of this village that has been budgeted by the village fund to meet the required facilities and infrastructure.

Ngrimbi with topography or soil conditions are relatively flat. The use of land in this village is dominated by the potential settlement is in the agricultural sector. The clean water is obtained from taps and wells. Empowering communities in this village include PKK and Karang Taruna and Gapoktan and entered the territory of this village that has been budgeted by the village fund to meet the required facilities and infrastructure.

Mutersari with relatively flat ground conditions. The use of land in this village is dominated by the potential settlement is in the agricultural sector. The clean water is obtained from taps and wells. Empowering communities in this village include PKK and Karang Taruna and Gapoktan and entered the territory of this village that has been budgeted by the village fund to meet the required facilities and infrastructure.

Dadirejo with relatively flat ground conditions. The use of land in this village is dominated by the potential settlement is in the agricultural sector. The clean water is obtained from taps and wells. Empowering communities in this village include PKK, Karang Taruna and Gapoktan and entered the territory of this village that has been budgeted by the village fund to meet the required facilities and infrastructure.
Analysis of Education, Policy and Disaster in the Ngrimbi Village

da. descriptive Statistics

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*Source: Results Analysis 2016*

Based on the output can be viewed on average Ngrimbi educational services in the village of 27 residents is 5.8580 with a standard deviation of 0.30207, for policy Ngrimbi village is 6.1605 with a standard deviation of 0.77278.

b. correlation

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*Source: Results Analysis 2016*

Based on the output can be seen that the major relationship between the variables of educational services with the Policy is 0.362, this shows a positive correlation, the greater the value of the policy, the higher the value of education services. While testing community preparedness analysis of disaster events can be observed in the following analysis.

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<th>Post Disaster</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

*Source: Results Analysis 2016*

Based on the output can be seen that the results of the analysis of community preparedness of disaster events showed 0.386 this suggests that there is a positive relationship between preparedness society towards disaster.

**CONCLUSION**

Ngrimbi Village, Bareng Subdistrict, Jombang District is classified as a disaster-prone areas, disaster ever occurred, i.e landslides. Based on the analysis we find that there is a
The relationship between policy and education within the framework of disaster risk reduction. Policy and technology-based education is expected to reduce the risk of disaster in order to minimize casualties and losses.

ACKNOWLEDGEMENTS
A big thank you addressed to Program of Urban and Regional Planning Studies, Faculty of Civil Engineering and Planning, University of PGRI Adi Buana (UNIPA) Surabaya as a forum for scientific development, and the parties that participate in helping in making this scientific article.

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TEACHING PHYSICAL EDUCATION AND SPORT THROUGH THEMATIC LEARNING APPROACH IN FOURTH GRADE ELEMENTARY SCHOOL

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ABSTRACT
New paradigm of teaching and learning process has been already implemented in many schools in Indonesia with new curriculum. Its name curriculum 2013. Elementary schools use integrated learning or thematic learning, including Physical Education, Sport and Health (PESH) lesson. Physical Education teachers should be taught PESH linked with other subjects. Research method used survey with descriptive quantitative approach. The subjects of the research are 10 elementary schools in Surabaya East Java that implemented curriculum 2013. The instrument of research was questionnaire developed by the researcher. Data analysis was descriptive quantitative. Based on the research analysis, the result showed that the 10 schools of fourth grade had good level (average 3.04) in first semester and (average 3.74) in second semester.

Keywords: Physical education, thematic approach, elementary school.

INTRODUCTION
Curriculum 2013 has been implemented since 2013 to date in almost all schools in Indonesia. Curriculum 2013 as the new curriculum changes have an impact on teaching and learning in schools. The fundamental changes that occurred in 2013 teaching in the curriculum at the primary level is a learning approach using a thematic approach (Ministry of Education and Culture, 2014). At this time, the approach to teaching and learning in primary school level taught by the class teacher, where previously taught by subject teachers.

Teachers in primary schools receive training conducted by the government, the training was conducted at national, provincial, district level up to the district or teachers in primary schools targeted. Training of teachers is done using training materials that have been designed and structured (Ministry of Education and Culture, 2014). The results of the training is expected to have an impact on the understanding of curriculum content and teaching practices in the classroom.

The new approach is done at the elementary level based curriculum in 2013 which uses a thematic learning approach, in one school year There are eight themes, each theme is divided into four sub-theme and each sub-theme consists of six teaching and learning process (Handbook Teacher, Grade 4, Ministry of Education and Culture, 2014).

When the 2013 curriculum implemented by the thematic approach of learning, physical education sports and health (PESH) teachers in primary schools are concerned, they can not be taught according to their knowledge and skills.

The problem that arises is the teacher of PESH, they are taught as subject teachers, and now should be taught with a thematic approach. The question that arises is how the quality of the results of the application of learning PESH before a subject becomes integrated with other subjects or thematic?
The results of the study explained that students who are taught by specialist teachers in the classroom more achieve, better in physical fitness, and a positive attitude towards physical activity (Rahim, Marriner; 1997, Sallis et al, 1997, Rink, Hull, 2008). Teachers of PESH in elementary school is a specialist teacher. So, they teach with higher quality because they have the knowledge and skills that are specialists.

If the teacher of physical education, sports and health as a teacher specialist. How is the quality of teaching specialist teachers who teach using a thematic approach to learning in elementary school especially in grade four?

RESEARCH METHODS
Types
This research is survey, and use quantitative descriptive. Researchers using this type of research to reveal the quality of teaching PESH teacher, there are 10 elementary schools that implement curriculum 2013. The whole school is located in Surabaya East Java.

Subjects
Subjects were the teachers of PESH in elementary school level, There are 10 elementary schools are implementing the curriculum in 2013 is located in the city of Surabaya, which is school targeted in the curriculum of 2013. The school has been running implement curriculum 2013 since 2014 until now. Researcher have surveyed 10 PESH teachers from 10 elementary school target, all teachers teach PESH in upper grade or in grade four.

Instruments
The research instrument used a questionnaire that has been developed by Researchers. He is conducted the instrument development phase, its starting first, from a literature review of various sources of books and journals, second, followed by assessment expert practitioners are teachers of PESH was a senior and experienced with using Nominal Group Technique (NGT). Third, the result of both an instrument and then make an assessment of the expert or expert validation using the techniques of Q-Sort. Expert validation results showed the questionnaire is ready to be field tested by performing tests on the ground to teachers PESH, and fourth, the results analyzed using factor analysis. The results of the factor analysis is the final result of the instrument that has been developed by research.

Result of Analysis of Factor in table 2.1. there are 5 factors and consist of indicator is 25, that researcher use for collect data in 10 school targets in Surabaya city.

Validity and Reliability Instrument
Validity of first component based on Corrected Item-Total Correlation the values are 0.268 - 0.484, the reliability is 0.58. Second component values are 0.260 - 0.371, the reliability is 0.560. Third component values are 0.275 - 0.399, the reliability is 0.612. Fourth component values are 0.347 - 0.251, the reliability is 0.488. Fifth component values are 0.238 - 0.357, the reliability is 0.526.

Analysis.
Researcher collect data to ten schools and analysis by descriptive quantitative, including describe the average of data in each schools in upper grade especially in teaching and learning process of PESH in grade four.

RESULT AND DISCUSSION
Field research result of teaching PESH in 10 schools target in elementary schools after analysis, can see in graph 3.1 and graph 3.2. The research conducted for a year include first semester and second semester, in each semester teach PESH based on 4 themes and in each themes consist 4 sub themes, and each sub themes consist 6 lesson.

The results generally show that primary schools in grade four that have implemented the curriculum 2013 results are an average of 10 elementary school targets to be in the good category for the first semester and second semester the category average good, some categories are very good.
DISCUSSION

Based on the survey results show that PESH teacher who taught in 10 primary schools target in Surabaya East Java based curriculum 2013 as a specialist teachers, they were able to teach PESH with a thematic approach with good results. Thus, teachers PESH need to continue to improve the knowledge and skills related to the curriculum 2013 and continues to do innovate teaching.

Based on research result thematic approach or integrated learning in PESH so feasible in elementary school, for example TAKE 10 program is success to integrate physical activity with academic concept in elementary school classroom (Debra L Kibbe, et al, 2011). Result of another study show movement can influence fluid intelligence and considered to promote cognitive development in elementary school children (Julian A Reed, et al, 2010). Other research also show that integrated movement based activities (IMBAs) give positive impact on students concentration, enjoyment of learning, engagement in learning and interpersonal relationship (Melissa Nalder, Maria Northcote, 2015).

Although, the results showed the success, Teach PESH in integrated or thematic approach not easy at the elementary school level, not all the themes in the curriculum in 2013 can be
integrated with other subjects, sometimes in PESH lessons should stand alone. Creativity of PESH teachers should be a fundamental point to be able to carry out the teaching of PESH integrated or thematic learning approach. For example, the creative game like odeme variation 1 and 2 (Eugene Asola, 2014)

CONCLUSION

Finally, PESH teachers who taught in 10 primary schools target in Surabaya that implement curriculum 2013 were able to teach with good results. The results of the average teaching score is 3.04 (good category) for first semester, while the results of teaching in the second semester average score is 3.74 (good category).

ACKNOWLEDGEMENTS

This study is acknowledged as limited only in 10 elementary school targets. We would like to say thank you to all PESH teachers and also the all school principal for cooperation and support during research. Finally, studies have been completed in a timely manner. We would like to say thank to Mrs. Sukarjati M. Kes as Head research institutions and community service University of PGRI AdiBuana Surabaya, Mr Djoko Adi Waluyo, DBA as Rector of University of PGRI AdiBuana Surabaya, and We would like to thank the Ministry of technology research and higher education Republic of Indonesia on the receipt of this research and financial support for this study.

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EFFECTIVENESS OF COGNITIVE-BEHAVIORAL GROUP COUNSELING TO REDUCE VOCATIONAL HIGH SCHOOL STUDENTS’ DOUBTS IN CAREER DECISION

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ABSTRACT
This research was based on the phenomenon that occurred in the field indicating the attitudes and behaviors that led to vocational students’ doubts in career decision making. The purpose of this research was to reduce the doubts in career decision making of vocational students through Cognitive Behavior group counseling. The study design used the pretest-posttest control group design. There were two types of instruments used: treated and measurement instruments. The treatment instrument consisted of books of KKKB guide for counselors, while the measuring instrument consisted of career decision-making doubts scale which had validity value R of above 0.320 and reliability of 0.855 and student self-reflection sheets. The data analysis used Two-Independent-Sample Test-Mann-Whitney U. The statistical analysis showed that the value of $z_{count} > z_{table}$, i.e. ~3.315 then $H_0$ was rejected. That means that Cognitive Behavior group counseling was effective for lowering doubts of vocational students’ career decision making.

Keywords: Group counseling, CBT, Career

INTRODUCTION
Interests or career choice of vocational students become an important reference for counselors and be part of the BK overall service program in the educational unit that includes services peminatan learners. It is associated with a specialization in a group of subjects, specialization across subjects or materials deepening specialization subjects, and interests of advanced studies. Guidance and counseling services program that provides services peminatan learners are under the responsibility of Master of Guidance and Counseling (Master BK) or counselor in any educational institution.

Make career decisions (career decision making) is a process in the development of one's career. Career decision making related to the experiences that occur in individuals as well as how to respond to the experiences and integrate into a living (Luzzo & Lisa, 2009). One of the most accepted theory universally on career decision making (career decision making) developed by Donald Super. According to Super, career development theory is one theory that describes the career decision-making as a process development for one's life (Allison & Cossette, 2007).

Super describe the career development consists of five distinct stages, these stages are: stage of growth (growth), exploration stage, the stage of formation (establishment), the maintenance phase (maintanance), and the stage of release (disengagement).

Adolescence is at the exploratory stage, namely at the age of 15-24 years. This stage is considered by many as the heart of the decision-making process of career (Luzzo & Lisa, 2009). Super describe the exploratory stage of career development consists of three major developmental task: crystallization, specification, and implementation of career options.

Several studies have shown that there is a correlation between self-concept and one's career include Ogaboh study (2010) showed that career advancement, career counseling and career opportunities significantly influence the personal commitment of employees. Research
King (2004), the self-management in a career can provide a positive psychological outcomes, including career and life satisfaction, enhance self-efficacy and well-being. Research Otta & Williams (2012) showed no significant relationship between self-concept (self concept) and interest in work (vocational interest)

Determine career decisions is not easy because students must strive to overcome ambiguities regarding its capabilities, the stability of the interest, the prospect of an alternative option for the present and future, accessibility career, and the identity it wants to develop in students (Bandura, 1997)

The impact of the doubt in individual career decision-making related to aspects of everyday kehidupann and how people make decisions will affect how to take career decisions in the future (Gati & Saka, 2001). Impact accompaniment that arise which lead to long-term negative consequences for the future of vocational, psychological wellbeing, health and social acceptance (Mau, 2000)

Doubts in career decision-making vocational students can be evidenced from the data acquisition interviews with counselors and news about vocational students career choice. Data obtained from interviews with counselors, among others less another 68% of students who carelessly in choosing majors in vocational, 74% of students often complain after entering the majors were selected, 59% of vocational students are not mempunyi career orientation, 71% of vocational students have the desire to switch majors and even wanting to work outside your field of expertise, 62% of students choose majors just follow your friends and the desire of parents.

Based on the results of research and studies exposure phenomena that occur in the field can be concluded that vocational students need activities that can reduce doubts career decision-making. Likely to happen when doubts career decision-making problems are not addressed, the student will show anxiety, worry, lack mantapan in selecting, avoidance behavior towards selection, handing the choice in the elderly, and went along with friends in choosing a career.

One strategy to overcome doubts in career decision-making vocational students is through group counseling, cognitive behavioral therapy (CBT). Counseling in guidance and counseling program (BK) included in the service responsive. Responsive service components in a comprehensive guidance and counseling program among others, which are individual counseling, group counseling, consultation and referral services.

The purpose of this CBT group counseling intervention is to provide a place where people can maximize their potential for career development through a series of activities such as the identification and modification of dysfunctional beliefs, playing the role of behavior (behavioral role play), and recommended to do homework. Based on the above explanation, the researchers used the title "The effectiveness of CBT group counseling to reduce doubts in career decision-making student of SMK"

**DISCUSSION**

Results of research conducted in the experimental group there are some results of the analysis before and after the intervention to the experimental group. Before the intervention given the experimental group, researchers must first conduct a pretest to determine the level of career decision-making student doubts. Pretest scale doubts career decision-making carried out by researchers at the two TMM XII classes totaling 34 students and class XII TAV totaling 30 students, so the total of students who take the pretest is 64 students. Data have been obtained further classified by the frequency of pretest doubt made a career decision-making vocational students.

<table>
<thead>
<tr>
<th>Nama</th>
<th>Total pretest</th>
<th>Klasifikasi</th>
<th>Total posttest</th>
<th>Klasifikasi</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS</td>
<td>65</td>
<td>Tinggi</td>
<td>35</td>
<td>Rendah</td>
<td>30</td>
</tr>
<tr>
<td>DO</td>
<td>65</td>
<td>Tinggi</td>
<td>36</td>
<td>Rendah</td>
<td>29</td>
</tr>
<tr>
<td>TM</td>
<td>64</td>
<td>Tinggi</td>
<td>29</td>
<td>Rendah</td>
<td>35</td>
</tr>
<tr>
<td>FS</td>
<td>63</td>
<td>Tinggi</td>
<td>36</td>
<td>Rendah</td>
<td>27</td>
</tr>
</tbody>
</table>
Posttests results showed a significant decrease, that all members decreased by classification has doubts that career decision-making lower in the range score (18-36). The average results show a score of 32.7 posttests classification doubts decrease in career decision-making. The experimental group had decreased doubt on the career decision-making before the given intervention until after the given intervention. The decline in scores can be seen from the average pre post scale doubts career decision making by 31

Results doubts scale pretest career decision-making control group showed that all members of the group went on a high classification scores range (18-31). The average results show a score of 62.1 pretets with high classification. Furthermore, once known the results pretets scale doubts career decision-making, it is provided a comparison of groups experimental intervention including counseling groups to lower the doubts the reality of career decision-making. Interventions made to the control group during the seven meetings. In the process of intervention there was little change doubt drop in career decision-making indicated members of the control group. Changes decline doubts career decision-making can be measured again after the intervention finished with career decision-making questionnaire doubt

Table 2 Result Pretest and Posttest control group

<table>
<thead>
<tr>
<th>Nama</th>
<th>Total pretest</th>
<th>Klasifikasi</th>
<th>Total posttest</th>
<th>Klasifikasi</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>NJ</td>
<td>60</td>
<td>Tinggi</td>
<td>56</td>
<td>Tinggi</td>
<td>4.00</td>
</tr>
<tr>
<td>RA</td>
<td>65</td>
<td>Tinggi</td>
<td>36</td>
<td>Rendah</td>
<td>29.00</td>
</tr>
<tr>
<td>FQ</td>
<td>61</td>
<td>Tinggi</td>
<td>58</td>
<td>Tinggi</td>
<td>3.00</td>
</tr>
<tr>
<td>AR</td>
<td>65</td>
<td>Tinggi</td>
<td>56</td>
<td>Tinggi</td>
<td>9.00</td>
</tr>
<tr>
<td>AF</td>
<td>64</td>
<td>Tinggi</td>
<td>56</td>
<td>Tinggi</td>
<td>8.00</td>
</tr>
<tr>
<td>WH</td>
<td>60</td>
<td>Tinggi</td>
<td>57</td>
<td>Tinggi</td>
<td>3.00</td>
</tr>
<tr>
<td>DS</td>
<td>63</td>
<td>Tinggi</td>
<td>56</td>
<td>Tinggi</td>
<td>7.00</td>
</tr>
<tr>
<td>CL</td>
<td>59</td>
<td>Tinggi</td>
<td>56</td>
<td>Tinggi</td>
<td>3.00</td>
</tr>
<tr>
<td>Rat</td>
<td>62.1</td>
<td>Tinggi</td>
<td>53.8</td>
<td>Sedang</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Posttest results showed minimal decline, but only one counselee decreased doubts career decision-making of high classification to be low with the range of scores (18-36), while seven remain on the counselee classification has doubts career decision-making with the range of scores (56- 74) only experienced a little bit of doubt change on a scale score of career decision making. The average results showed scores 8.2 posttets classification has doubts career decision making

The average value doubt career decision-making acquired before being given treatment KKKB in the experimental group was 63.7 in classification has no doubt the decision making a career high, and after being given treatment KKKB reached an average value doubt career decision making 32.7 in classification has no doubt decision career low

Analysis of the data against the hypothesis testing using nonparametric statistical techniques, because the data is processed only slightly (<25) thus considered not normal. Testing the hypothesis in this study were tested using statistical analysis independent-sample / two independent samples Mann Whitney (Santoso, 2001) to test the effectiveness of cognitive behavioral group counseling to lower the doubts career decision-making. The study hypothesis was determined as follows:

H0: There is no significant difference between treatment groups of experimental and control groups to lower the doubts career decision making
H1: there is a difference in effectiveness between the treatment experimental group and the control group to lower the doubts career decision making

Results of statistical test by Mann Whitney techniques showed the following data:

<table>
<thead>
<tr>
<th>Kelompok</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eksperimen</td>
<td>8</td>
<td>4.63</td>
<td>37.00</td>
</tr>
<tr>
<td>Kontrol</td>
<td>8</td>
<td>12.38</td>
<td>99.00</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>Skor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>37.000</td>
</tr>
<tr>
<td>Z</td>
<td>3.315</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td>.000a</td>
</tr>
</tbody>
</table>

a. Not corrected for ties.
b. Grouping Variable: Kelompok

Based on the table looks that score Asymp.Sig. (2-tailed) stood at 0.001 (0.001 <0.05), so H0 is rejected. It was concluded that there are significant differences between the experimental group and the control group, meaning that the counseling group behavior kognitif effective to lower the doubts career decision-making student.

The results of the identification of thoughts, feelings, and negative behavior which is done through the identification sheets mind hereinafter discussed with the group leader and member of the group, the findings of researchers showed six career decision-making component doubt the most widely experienced by students is a component of the fear of commitment.

Given basic understanding counselor can provide stimulus to the members of a group linked to analyze the thoughts, feelings and behaviors that appear negative in career decision-making.

Members of the group show is able to identify negative thoughts that observed through a narrative of members in the stage of identification of positive and negative thinking "I am afraid if I choose in the end will disappoint their parents, so I prefer to hand over career choice to parents alone, it the most effective and safe. I know that's what makes me so far not dared to take a decision."

The findings are consistent with the theory of cognitive behavior counseling that emphasizes that human beings have the potential to absorb the rational and irrational thinking, in which the irrational thoughts that can cause emotional distress and deviant behavior. Therefore, in this study, which focused first on KKKB intervention is the understanding and correction of cognition members who are still irrational.

If it is associated with a doubt in career decisions, resulting in students' cognitive processes occur less working well and focused in determining the right career choice. The person assessing the options are many and do not understand the potential, making it less able to combine these choices with the potential that it has, in addition, factors outside the individual is susceptible to giving effect to the students, so it appeared to be doubtful individuals in choosing a particular career. The condition where the individual feels unsteady and indecisive related career choices are basically created by irrational thoughts or dysfunctional. KKKB based on the concept that mind-altering impact on the behavior of students can take career decisions appropriately.

CONCLUSION

Based on the analysis and the above discussion, it can be concluded that the approach to group counseling Cognitive Behavior proven effective for lowering doubts vocational students.
career decision-making. These results are based on a statistical analysis of Two-Independent-Samples Test-Mann-Whitney U with SPSS for windows version 20:00, that the count value $z > z$ table is 3.315 and the value Asymp. Sig. (2-tailed) was 0.001 > 0.05. The analysis showed that the eight counselee in the experimental group experienced doubts penurukan career decision-making sharper than the control group.

**REFERENCE**


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THE EFFECT OF LEARNING MOTIVATION AND LEARNING STYLE ON MATHEMATICS ACHIEVEMENT OF ACCOUNTING STUDENTS

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ABSTRACT
This research aims to examine the effects of learning motivation and learning styles on mathematics achievement of Accounting students. The research was conducted on 102 Accounting students by spreading the questionnaire aimed to find the learning motivation and learning styles of students, whereas the achievement of student is obtained from the data of test result of on each cycle. Each student must have different motivation and learning styles, of course, this will affect the achievement of students. Of the result of this research, the researchers obtained results showing that the learning motivation and learning styles significantly affected the achievement of students. The research was based on the identification of factors such as learning motivation and learning style, because these factors showed that they affected the high and low achievement of students.

Keywords: learning style, learning motivation, learning achievement.

INTRODUCTION
The education process is a system that consists of input, process and output. Input is a learning activity that will be carried out by the students, the process of an activity or learning activities, while the output is the result of inputs and processes are implemented. The process of education is expected to produce qualified human resources and high competitiveness to face global competition. The process of a nation is determined by the quality of human resources, while the human resources depends on the quality of education. The role of education is very important to create a society that is intelligent, peaceful, open and democratic.

Based on the results of a survey, Prasing (2007) that the majority of school age is learning style kinestik and turned out students who have a learning style auditorial and visually far less than imagined teachers, so that weaknesses of learning in school is the lack of teachers’ efforts to give attention to the differences and individual needs of students. Although very common in classical learning done, does not mean individual differences can be ignored. Precisely because the nature of the teaching classical teachers should purposely and consciously pay attention to each child individually.

Aware of the importance of the process of teaching and learning to achieve the maximum results required setting a good study and encouragement or motivation to achieve a satisfactory learning achievements. Low awareness of the student to arrange a good way of learning and a lack of motivation to Excel is one such barrier to achieve the expected learning achievements.

Factors influencing achievements of the study or the results of the study are internal factors and external factors. Internal factors are divided into two types: psychological and biological factors. Psychological factors include fatigue, mood, motivation, interest, and learning success. Biological factors that affect learning achievement is like the age, maturity, and health. While external factors include environmental factors, human and non-human-like nature, objects, and the physical environment, Hendriani (2008).

According to Sardiman (2011), outlines the six psychological factors in the study include motivation, concentration, reaction, the organization. In addition to the six psychological factors still exist other formulas in the formula concerning the encouragement of
learning on one’s self, including attention, observations, feedback, fantasy, memory, thought, aptitude, and motivation.

In addition, there are still according to Slameto (2010) classify the factors influencing learning into two classes namely the internal factors and external factors. Internal factors consists of physical factors, psychological factors, and exhaustion. Psychological factors include intelligence, attention, interests, talents, motives, maturity, and readiness. While factors external factors consist of family, school, and community.

From the above it was concluded that varying opinions keberhsilan someone in learning can be determined by various factors. Two factors that are thought to affect the accomplishment of learning is the learning styles and motivation to learn.

According to Wasty (2003) States the introduction to results or progress of his studies is important, because knowing the results of the study already achieved then the students will further enhance the results of his studies. And thus an increase in the results of the study can be optimized because the students feel motivated to improve the learning outcomes that have been achieved before.

The results of the study can be seen from the occurrence of a change of input results in the form of personal motivation and hope to succeed, Nashar (2004). Changes that occur to someone in the disposition or the human skills of mastering the science knowledge and skills acquired through the truly done in one particular time or in a relatively long time.

The expected learning outcomes usually a good study achievements or optimal. But in the achievement of a good learning results is still having difficulties and achievements earned can not be achieved optimally. In increasing student learning outcomes are influenced by many factors, namely, motivation for learning and learning style

In motivation study contained the presence of goals or aspirations of students is expected of students got the motivation of learning so as to understand with what purpose in learning. In addition, the State is a good student in learning will lead the students interested in learning and be able to complete the task properly, the opposite with a student who is sick, he has no passion in learning, Mudjiono (2009).

In addition to motivation learning, style Learning students also thought is crucial in creating a good achievement. Described by Bobbi De Porter and Mike Hernacki (2001) in his book Quantum Learning: 'learning style is the key to developing performance in work, school, and in interpersonal situations. So learning styles will affect someone in absorbing and processing the information so that it will affect the accomplishments achieved'.

The results of the research on the motivation of learning done by Anni (2008), concluded partially in effect learning motivation significantly to academic achievement. Lestari (2010), concluded that the influence of learning motivation of significant academic achievement against learning. Hamdu (2011), concluded that there was a significant between influence the motivation of learning with the learning achievements. Marcal (2006), concluded that the influence of learning motivation towards learning achievements have low relative influence. In addition, the research also found about learning styles done by Sariyani Nasution (2008), concluded that learning style significantly influence on learning achievement.

Based on observations of researchers, each individual has a wide variety of ways of learning effect on the success of the study. How to learn the multi-faceted is known as learning styles (learning style). In addition to learning, motivation is also one of the things that impact the success of learning. Individuals have different learning motivation. The learning achievements to date is still one of benchmark competencies of students. Departing from such phenomena, then investigators felt the need to investigate more on the influence of learning motivation and learning styles towards achievement of learning on students' mathematics of economics courses.

**RESEARCH METHOD**

This study is a literature review of research i.e. research obtained with gather information that is relevant to the topic that is the goal in research. Data source this study is a scientific report, namely the journal the fine print and non print, thesis, dissertations of rebellion related to research topic. To achieve the goal of research, at an early stage researchers put
together a variety of resources and information related to the topic. Based on the reference is obtained, the researchers then examine and analyze on the influence of learning motivation and learning style students learn math achievement against the economy.

RESULTS AND DISCUSSION
Learning Motivation and Learning Styles

Learning is a process important to change human behavior and include all that well thought out and executed. According to Wingkel in Darsono (2000) study is a psychic/mental activity in the active interaction with the environment, which results in a change in knowledge, skills, understanding the value of attitude. Djamarah (2002) also revealed that learning is a series of mental activity in order to obtain a change in behavior as a result of the experience of individuals in interaction with its environment concern the cognitive, affective, and psychomotor.

Of the opinions above, it can be concluded that learning is a process of change in man that looks like the behaviour changes in habits, knowledge, attitudes, skills and mindset.

According to Mc. Donald, quoted Oemer Hamalik (2003), motivation is the change in energy in a person characterized by onset of feelings and reactions to achieve the goal. With this understanding, we can say that the motivation is something complex. Then, according to Clayton Alderfer in H. Nashar (2004) learning motivation is an internal and external dorogan that cause a person to act or do achieve the goal, so that changes the behaviour of themselves are expected to occur.

From urairn above, it can be concluded that the motivation of learning is the overall driving power either from within or from outside of themselves by creating a series of efforts to provide certain conditions that ensure continuity and provide direction on learning activities, so that the desired goals by the subject of the study it can be achieved.

Learning style is not the talent that carried since childhood but a skill belonging to someone by way of exercise. Someone who is always practice the learning style has a good time, then it will have a good study habits as well. A good learning style will make it easier for a person to learn.

Learning Achievement

Soejanto in Supartini (2008) defines learning as the degree of mastery of the results achieved in the teaching and learning program in accordance with the educational objectives that have been set. According to Herman Hudojo (1998) posited pendapatya about the achievement of learning and the learning process is important, both in the learning process of thinking going on.

Then according to Sudjana (1990) mentioning the achievements of learning is the ability-a capability has been owned by the student after he accepted their learning experience. So is the ability of learning achievements obtained based on the learning process and it is shown with the ability to solve problems by applying the pegetahuan obtained from the learning process.

So is the learning achievements are the results of the evaluation of the students by using the assessment tool, after learning the good material or planned time and achievement of the desired learning tailored to types and their functions in the assessment or measurement. In this research is meant by learning achievements is the final value of mathematical subjects students on semester where research goes.

Connectedness Motivation of Learning, Learning Style, and Learnin Achievemen

In terms of student learning will be successful if in itself there is a willingness to learn, a desire or urge this is called motivation. In the motivation implied the existence of goals or aspirations of the students. The condition of the students, in a State fit will lead to students interested in learning and be able to complete the task properly, nor vice versa.

In addition, the learning styles of students which is always a good learning style mempraktekkn every time, then students will have good study habits. A good learning style will
make it easier for a person to learn. Student who systematically make time to learn, don't procrastinate, always trying is an indicator that they have menyusun a good learning style.

Of the various limitations of understanding motivation appears to be the basis of the needs and goals of motivations is in it gives a direction to achieve it. The role of motivation is the cause the urge to behave as well as maintaining that behavior with oriented to goal. Thus a good learning style done someone closely related to motivation to achieve the feat.

**The Effects Of Learning Motivation And Learning Style On Mathematics Achievement Of Economic Students**

Motivation is the impulse, desire, need someone to perform a particular activity. So the motivation can also be defined as a force that drives the direction and actions towards a goal. The motivation of learning can be interpreted as encouragement that is intrinsic or extrinsic to learn. While the students learn math achievement is the work achievement as determined by motivation. For students who have high motivation tends to have a high learning math achievement anyway.

Thus it can be interpreted that a good learning style and was followed by sustained motivation or continuously can affect a person's learning achievements. Based on the study of the theory of the research hypothesis is the motivation and learning styles have significant influence with the presatasi economic students learn math.

**CONCLUSION**

Learning styles of students each time, then students will have good study habits. A good learning style will make it easier for a person to learn. Student who systematically make time to learn, don't procrastinate, always trying is an indicator that they have menyusun a good learning style. For students who have high motivation tends to have a high learning math achievement anyway. motivation and learning styles have significant influence towards presatasi economic students learn math.

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THE EFFECT OF USING CARD MEDIA, POWERPOINT AND MOTIVATION TOWARDS LEARNING OUTCOMES IN MATHEMATIC FOR PRIMARY 1 OF SURABAYA GRAMMAR SCHOOL

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ABSTRACT
Word problem is known as one of difficult topics in Mathematics. Majority of students make mistake in solving stories. Efficient strategies are needed for word problem. Using media is one of strategies that yet still needs to be developed more. Thus, this paper aims to find out if there is effect of the use of card media, PowerPoint and motivation against students’ learning outcomes in math for Primary 1 students. The research method applied here was experimental method using quantitative approach. The data were obtained using test, questionnaire and documentary studies. ANOVA test was used to obtain correlation. Thirty eight students are selected using random sampling method. Pearson test results showed that PowerPoint had a more significant effect than that of card media. Also, motivation gives out effect towards students’ learning outcomes. Therefore, this paper proves that card media, PowerPoint and motivation effect and have interaction towards students’ learning outcomes in word problem significantly.

Keywords: Card Media, PowerPoint Media, Motivation, Learning Outcomes

INTRODUCTION
The difficulties of solving word problem often struggles the students especially primary 1 students. Many mistakes have been made solving the word problems, as Gooding (2009) lays out the problems occurred namely; Reading and comprehending the questions, Imagining the context as motivation takes part on it, Writing a number sentence and Carrying out the calculation. Understanding the questions and figure the questions out are important in term of solving the word problem. Yet, many students still needs some encouragements to solve the word problems. The students’ problems are proven from the data shown on Mahmuda (2015) exposed 33% students failed achieving the standard. Hence, as the explanation above, participation of the students to deliver their ideas are yet to improve, students motivation in solving word problems needs to improve more, the way teacher delivers the lesson effect students achievement. Many students still finding difficulties to apply the use of addition or subtraction to solve the word problem. Problems occurred for the majority of primary 1 students as young learners, the visualization or imaginary tool should be applied in learning, as each student has different level of focused, analytics, identifying and understanding the language. Thus, motivation and the use of media take part in order to improve the learning outcomes. Arsyad (2002:4) pointed out media is a tool that transfers ideas, thought and opinion that human beings used to the receiver. Specifically, media for learning tend to interpret the process and transfer visual information or verbal information. Forsten (2010) stated media makes the learning process easier. Susilana (2007;99) explained the use of media makes the presentation better as animation and audio can be included in learning. Card media, PowerPoint and motivation were used in this research. Herlanti (in Munadi, 2010:150) stated PowerPoint is able to show the object visually. Cognitive areauses mental imagery to improve students’ retention, this statement reflects to the problem occurred for primary 1 students who are still finding difficulties in solving word problems due to lacks of visualization or imaginary. PowerPoint is able to develop learning material by combining text, picture, video, graphics, table, voice and animation. Berliana(2008:1) in Aji (2013) pointed out the use of card media helps the students to actively involved in the learning, being active and have critical thinking in learning and in innovative ways to find a way or substantiation of mathematical theories.
Optimize the uses of all human senses (Berliana, 2008:1) in Aji (2013). Imagining the context in word problem is one of essential part, as motivation takes part on it. Uno (2006) explained that motivation is a psychological process that explains the behavior of persons, motivation is the encouragement that drives someone doing something to achieve a purpose. Encouragement is essentially stimulated by the presence of various kinds of needs, such as: desire, mannerisms, the goals, and feedback. The motivation to study has very decisive role and encourage students with concerns and concentration to learn. Students’ learning outcomes will improve if the students exceed the purpose expected. Hence, in this case the motivation of study influences study results. The higher of motivation to study, then study results achieved will increase. On the contrary, the lower of motivation to study, the study results achieved could decrease. This paper aims to analyze the influence the use of card media, PowerPoint towards students’ mathematics learning outcomes, to analyze the influence of students’ motivation and to investigate whether card media, PowerPoint and motivation influences towards learning outcomes.

**Hypothesis**

As Hypothesis for this research are; (1) there is a significant effect between the use of card media and PowerPoint towards students learning outcomes in Mathematics primary 1, (2) there is a significant effect between students’ motivation and students’ learning outcomes in Mathematics, (3) there is an interaction among the use of card media, PowerPoint and students’ motivation towards students’ learning outcomes.

**RESEARCH METHOD AND INSTRUMENTATION**

This study used quantitative approach. The method of this research is true experimental design which used to find the effect of treatment against another group with controlled conditions. The variables examined in this study are independent variables such as card media and PowerPoint, moderator variable; students’ motivation and dependent variable students’ learning outcomes. There were groups experiment and the control group, which taken randomly for the purpose of the research, and to seek the effect of treatment.

**Participants**

Statistical society was primary 1 students with 136 pupils. The researcher used random sampling to be chosen as sample. To determine sample from a population with criteria as follow: (1) the average score of standard minimum score less than 50%, (2) the students who have lower score for mathematics. The sample used were 38 students from 2 classes, based on from lottery given.

**Data Collecting Method**

The collecting data method used here are questionnaire, test and documentation studies. Questionnaire to measure students’ motivation, from the result of motivation test can eventually be concluded that students classified into 2 groups. High motivation and low motivation. Likert scale was used in this study. As Bertram (2007) stated that Likert scale is a psychometric scale commonly involved in research that employs questionnaires which can be used for measuring opinions or education phenomenon. The questionnaires will be given to the respondents to choose one of the options given. Test with 10 questions of word problems were given to the respondents. Documentation studies was used to analyze the documents related to the research.

**Data Analysis Method**

As the hypothesis have been formulated, the data analysis technique used was ANOVA 2tailed. Significance level of 0.05 was used to analyze data produced by factorials singular or plural so that it can be known which variable will have different effect. Resulted data will be shown below.
FINDINGS AND DISCUSSION
The student learning outcomes on class control and experiment through test with 10 questions with pretest and posttest shown in table 5.1. The students learning outcomes towards high and low motivation shown in table 5.2.

Table 5.1 Students’ learning Outcomes from the Use of Media

Source: SPSS (2016)
It is clearly shows that the use of PowerPoint has significant relation towards learning outcomes as average score shown 77.63 with completed status.

Table 5.2 Students’ Learning Outcomes towards High and Low Motivation

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Students’ Motivation</th>
<th>Students’ Learning Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>Low</td>
<td>67.14</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>59.58</td>
</tr>
<tr>
<td>Post Test</td>
<td>Low</td>
<td>79.29</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>71.88</td>
</tr>
</tbody>
</table>

Table 5.3 Interaction among Students’ Learning Outcomes, Media and Students’ Motivation

Source: SPSS (2016)
Table 5.2 shows that majority average score of students learning outcomes with low motivation in completed category, whereas students learning outcomes for pretest with low motivation was 67.14 in uncompleted category.

Table 5.4 Normality Test for Control Group and Experiment

<table>
<thead>
<tr>
<th>Groups</th>
<th>Treatment</th>
<th>Variable</th>
<th>Kolmogorov Smirnov</th>
<th>Signifikasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Media</td>
<td>Pre Test</td>
<td>Prestasi belajar Pre Test 0.888</td>
<td>0.438</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>Prestasi belajar Post Test 0.608</td>
<td>0.854</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hasil Motivasi Belajar 0.599</td>
<td>0.866</td>
<td></td>
</tr>
<tr>
<td>PowerPoint</td>
<td>Pre Test</td>
<td>Prestasi belajar Pre Test 0.569</td>
<td>0.902</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>Prestasi belajar Post Test 0.515</td>
<td>0.953</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hasil Motivasi Belajar 0.862</td>
<td>0.447</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS (2016)
According to the table 5.4, normality testing shows that significance was 0.438 for card media pretest. Card media posttest was 0.866. Motivation results 0.854. All the result was more than
It could be concluded that pretest data distribution, posttest and motivation were normal. As for PowerPoint group the significance was 0.902, posttest was 0.953, and students’ motivation 0.447. Hence, it could be concluded that pretest data distribution, posttest and motivation were normal.

Table 5.5 Homogeneity Test (Lavene’s test)

<table>
<thead>
<tr>
<th>Levene’s Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F (df1, df2)</td>
<td>Sig.</td>
</tr>
<tr>
<td>1.966 (3, 34)</td>
<td>0.138</td>
</tr>
</tbody>
</table>

Source: SPSS (2016)

Levene F of students’ learning outcomes variable and students motivation in card media group and powerpoint group shows significance is 0.138, which means higher than 0.05. Therefore, Ho accepted or Varian between variable groups and students learning outcomes are same or homogeny.

Table 5.6 Analysis of ANOVA 2tailed

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum Of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>1950.865</td>
<td>3</td>
<td>650.288</td>
<td>3.128</td>
<td>0.038</td>
</tr>
<tr>
<td>Intercept</td>
<td>196988.488</td>
<td>1</td>
<td>196988.488</td>
<td>947.567</td>
<td>0.000</td>
</tr>
<tr>
<td>Kelompok</td>
<td>1000.856</td>
<td>1</td>
<td>1000.856</td>
<td>4.814</td>
<td>0.035</td>
</tr>
<tr>
<td>Motivasi</td>
<td>915.988</td>
<td>1</td>
<td>915.988</td>
<td>4.406</td>
<td>0.043</td>
</tr>
<tr>
<td>Kelompok*Motivasi</td>
<td>887.172</td>
<td>1</td>
<td>887.172</td>
<td>4.268</td>
<td>0.047</td>
</tr>
<tr>
<td>Error</td>
<td>7068.214</td>
<td>34</td>
<td>207.889</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>220525.000</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>9019.079</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R Squared = 0.216 (Adjusted R Squared = 0.147)

Source: SPSS (2016)

Anova 2 tailed for testing first hypothesis which says ‘there is significant differences between PowerPoint and card media” resulted as follows:

Statistics Testing:

\[ F_{hitung \text{ kelompok}} = 4.814; \text{ with significance} \ 0.035 \]

Based on the output of SPSS, the probability significance is <0.05. Hence, it could be concluded that \( H_o \) was declined and \( H_1 \) was accepted. It is proven that there is significance relation between card media and powerpoint towards students learning outcomes. The table also clearly shows that the average score of posttest with card media is 69,74 (uncompleted), whereas the average score for powerpoint is 77,63 (completed) which means powerpoint is higher than card media. From the average score could be concluded that there is significance relation between control group (card media) and experiment group (powerpoint).

Anova 2 tailed for testing second hypothesis which says “there is a significant effect between students’ motivation and students’ learning outcomes in Mathematics”

Statistic Test:

\[ F_{hitung \text{ Motivasi}} = 4.406; \text{ with significance} \ 0.043 \]

Based on the output of SPSS, the probability significance is <0.05. Hence, it could be concluded that \( H_o \) was declined and \( H_1 \) was accepted. It is proven that there is significant effect between students’ motivation and students learning outcomes.

Anova 2 tailed for testing third hypothesis which says “there is an interaction among the use of card media, PowerPoint and students’ motivation towards students’ learning outcomes”

Statistic Test:
\[ F_{hitung \text{ Interaksi}} = 4.268 ; \text{ with significance } 0.047 \]

Based on the output of SPSS, the probability significance is <0.05. Hence, it could be concluded that \( H_0 \) was declined and \( H_1 \) was accepted. The result of significance is less than 0.05 means there is an interaction among the use of card media, PowerPoint and students’ motivation towards students’ learning outcomes.

Significance Result for the Interaction in figure 5.1 below

**Figure 5.1**

*Estimated Marginal Means of Prestasi Belajar Post Test*

The figure above reveals there is a connected line or intersection data of learning outcomes with low motivation and high on the control group (method) cards and experimentation (powerpoint).

**CONCLUSION**

Based on the research that had been done, it can be concluded that:
1. The use of card media and PowerPoint exposed significant effect between students learning outcomes in mathematics.
2. There is an effect of students’ motivation towards students learning outcomes.
3. There is an interaction among card media, PowerPoint and students motivation in learning towards students learning outcomes in Mathematics.

**REFERENCE**


IMPLEMENTATION OF VAN HIELE’S PHASES OF LEARNING MATHEMATICS

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ABSTRACT
The lack of understanding on the concepts of Geometry from elementary schools to university is presumably because the approach to learning Geometry does not consider the level of student progress and the learning materials of Geometry does not correspond to the level of student thinking or construction of material classes are not in accordance with the formal geometry construction. One theory which is fundamental for use in learning geometry and the focus of discussion in this study is the use of the Van Hiele Theory. The aim of this paper is to provide an overview of the implications of learning Geometry at the college level based on the phases of learning by Van Hiele. The Van Hiele Theory divides the phases of student into the phases of visualization, analysis, informal deduction, deduction and rigor. While the Van Hiele phases of learning are divided into the stages of inquiry, directed orientation, descriptions, free orientation, and integration. Examples of learning Geometry in this paper is the study of Geometry in universities based on the phases of learning by Van Hiele.

Keywords: Geometry learning, Van Hiele phases of learning

INTRODUCTION

For most, geometry is still among the most dreaded of subjects. There are still many students who have difficulty understanding the concepts of geometry. Budiarto research (2006) showed the results that 22% of the 54 students used "that will be proven as the unknown", in addition to 19.4% of the 42 middle and high school teachers in Surabaya had difficulty resolving problems "prove that ..." In another study, 24% of the 62 students in a geometry lesson, they could not write what was known and what was being asked of the problems given and the student misconceptions in understanding the concepts of geometry. The research findings by Budiarto (2006) showed that the students made mistakes in analyzing the matter. It is seen from the students' lack of attention to the presence or absence of information on a given problem. In solving the problem it was not uncommon for the students not to know what was known and what was to be proved on a given problem. The students could not use what was known or used what would prove to be known. The students just understood the geometry in a moment of time.

The Van Hiele theory of geometric thought describes the different levels of understanding through which students progress when learning geometry. The Van Hiele model for the theory of geometric thought consists of five levels: Inquiry / Information, Direct Orientation, explication, Free Orientation, Integration. (Yazdani, 2008: 60). In the first phase, i.e. Inquiry/Information, teachers and students discuss topics and ask a few questions to the students. In the second phase, i.e. Direct Orientation, students explore the topic. In the third phase or Explication students begin to form relationships explication about the topic. In the fourth phase or Free Orientation the students work independently to resolve more complex problems. In the fifth stage or Integration of students summarize and review on a particular topic.

Casbari (2001) conducted a study with the result that the use of the Van Hiele approaches in mathematics learning could improve the students’ learning achievement and motivation and learning of mathematics provided more enjoyable teaching and learning atmosphere (class atmosphere). Husnaeni conducted a research of which the result was that the Van Hiele theory could be applied in learning to stabilize the initial conception of the same
students with the scientific concept of triangle. The learning implementation in accordance with the theory of van Hiele leads students to change the improper conception of and easier for students to release her intuitive knowledge towards the establishment of the conception of the same geometry with scientific concepts. The purpose of this paper is to provide an overview of the implications of learning geometry in colleges based on the stages of learning of Van Hiele.

RESEARCH METHOD

This study is a literature review obtained by gathering information relevant to the topic that is in line with the purpose of research, in this study the steps being taken is to collect information from journals associated with the Van Hiele theory.

RESULTS AND DISCUSSION

The Implications of the stages of learning geometry by Van Hiele in college are as follows.

A series of learning can be realized with concrete objects, pictures, diagrams and symbols. Students are better able to absorb the formal and abstract concepts of mathematics directly rather than concrete objects having been imagined. Fuys (1988) in Husnaeni (2001) states that to help students pass the stage of thinking of a next step in learning geometry to the necessary learning experience according to the stages of student thinking. The process for control of ideas or mathematical concepts is time consuming and relevant stages. One hypothesis proposed deductively about student progress and related to learning mathematics, especially in geometry is the theory of the development of thought by Van Hiele. According to Van Hiele (Yazdani, 2008: 60-61), a person will go through five stages of development of thinking in learning geometry. The five stages of development of thinking by Van Hiele are visualization, analysis, informal deduction, deduction, and rigor. This shows the characteristics of each stage of the thinking process in understanding the geometry. All the five of these stages can be explained as follows:

1. Level 0 (Visualization), the students see geometric figures as a whole, but they cannot identify the properties or review these figures. The students see geometric shapes as a whole, but they cannot identify the properties of the shapes. The students at this level are familiar with geometric shapes such as rectangular, square, parallelogram, trapezoid, etc. Based on the form of the display of the shapes that are real, the students in this level has not been able to characterize the shapes that are the opposite sides of the rectangle are the same. The students in this level are also unable to accept the properties or geometry concepts in understanding, but they merely rote.

2. Level 1 (Analysis). The students can identify the figures and their properties, but they cannot see the interrelationship between different figures, and they also cannot understand definitions. The students can identify shapes and their properties, but they cannot see the connection between different shapes, and they cannot understand the definition. The students at this level already know the properties of a quadrilateral (rectangular, square, parallelogram, trapezoid, etc.) as the four sides of a square of the same length, the two opposite sides of a rectangle of the same length, but have not been able to demonstrate the relationship that square is a rectangle or a rectangle is a parallelogram.

3. Level 2 (Informal Deduction). The students can use definition but they cannot construct a proof. The students can use the definition, but they cannot establish the proof. The students in this level have been able to demonstrate the relationship between waking up flat like a square is a rectangle, the rectangle is a parallelogram. In this level the students have also been able to determine the structure of the flat rectangular shapes. In addition, the students are able to think deductively and can form a geometric structure which is abstract, although informal nature.

4. Level 3 (Deduction), the students can construct a proof but they cannot understand the rigor of geometrical methods. The students can build evidence but they could not understand the rigor of geometry methods. The students in this level can already be formally invited to think deductively. Evidence of a theorem is no longer proved by using inductive but entirely
deductive by using elements such as understanding the base of geometry, axioms, definitions and theorems, although not yet truly understand why the axiom is raised. The students in this level have not been able to determine whether the axiom used is appropriate or not in the geometrical structure is concerned.

5. Level 4 (Rigor), the students understand the geometric methods and generalize the geometric concepts at this level. Also they are capable of problem solving. The students understand the geometric method and generalize geometric concepts at this level. They are also able to solve the problem.

Van Hiele believes that a higher level is not obtained through teacher lectures, but through the selection of proper exercise. Therefore Van Hiele offers the five stages of learning sequence and a teacher's role in managing the learning process, namely (1) Enquiry, (2) Guided Orientation Guided, (3) Description, (4) Free Orientation, and (5) Integration. All of these stages are described as follows:

The first phase: Inquiry/Information - the teacher and student and teacher discusses the topic and asks some questions from the students. The teachers and students to discuss the topic and the teacher asks a few questions from the students. At the beginning of this level, the teachers and students to use questions and answers about objects studied at the stage of students thinking. The teachers ask questions to students while making observations. The purpose of this activity is: (1) the teacher studies the initial experience of the students on the topics discussed. (2) the teacher in the instructions that appear in order to determine future learning to be taken; The second phase: Direct Orientation - the properties of figures are investigated experimentally. The students explore topics learned through tools carefully prepared by the teacher. This activity will gradually reveal to students the structure of the desired material. The equipment or materials is designed into short tasks that can bring specific responses; The third stage: Explication - the students are beginning to form a network of relations regarding the topics being studied. The students begin to form a network of relationships on the topic being studied. The students express the view that emerges about the structure observed. In addition, to help students use language precisely and accurately, the teacher provides assistance as little as possible. It lasts until the system of relations at the stage of thinking begins to seem real; the fourth stage: Free Orientation - the students work independently more complex problems. The students face more complex forms of tasks that require many steps, a task that comes with a lot of ways, and open-ended tasks. They gain experience in finding their own way, and in completing tasks. Through orientation among students in the areas of investigation, many relationships between objects become clear. This learning phase aims to enable students to gain experience in solving problems and using his strategies alone. The teacher's role is to choose the material and appropriate issues to get the learning that enhances the acquisition of a wide range of student performances; the fifth stage: Integration - using summaries and reviews, the students integrate reviews of their knowledge about a specific topic. Using the summary and review, the students integrate their knowledge of a particular topic. The students revisit and summarize what they have learned. The teacher can help students in making this synthesis to complement global survey on what they have learned. The purpose of this learning phase is to interpret the knowledge of what has been observed and discussed. The teacher's role is to help interpretation of the students' knowledge by asking the students to make a reflection and clarify the knowledge of geometry, as well as strengthen the pressure on the use of mathematical structures.

Here is an example of the implementation of the stages of learning by Van Hiele in parabolic material in the course of Analytical Geometry for class of 2015 to the achievement of the course and the following indicators.

Achievement subjects: Ability to resolve problems related to the parabola
Indicators: The accuracy in determining the equation of the parabola
Table 1 Stages of learning of Van Hiele and learning activities

<table>
<thead>
<tr>
<th>Learning phases</th>
<th>Learning Activities</th>
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<tbody>
<tr>
<td>Phase 1 Inquiring/ Information</td>
<td>The teacher makes questions and answers exploration or gains knowledge/concepts that students have understood before presenting about parabola. To lead to the learning objectives, the questions are directed at understanding of the parabola that has been studied previously.</td>
</tr>
<tr>
<td>Phase 2 Directional orientation</td>
<td>The students are divided into groups. Each consists of 4-6 students. Each group is given a worksheet about parabolic equation. The teachers lead the students to explore the information contained in the worksheet to identify the components to find the equation of parabola.</td>
</tr>
<tr>
<td>Phase 3 Explication</td>
<td>By using question and answer the teacher asks the students to explain what information is obtained from the worksheet. Together the students identify and find a parabola with a peak (0.0)</td>
</tr>
<tr>
<td>Phase 4 Free orientation</td>
<td>The teacher asks the students to find the equation of a parabola with a peak (a, b) by using the worksheet guided by the information obtained previously.</td>
</tr>
<tr>
<td>Phase 5 Integration</td>
<td>The students summarize and review what has been learned about the parabolic equation.</td>
</tr>
</tbody>
</table>

CONCLUSION
The stages of learning as modeled by Van Hielle constitute a stage of learning in mathematics, especially geometry. The implication of this theory is explained through the example of learning geometry in colleges that are expected to contribute to the teachers or lecturers as one approach to teaching geometry in order to make learning more effective and meaningful.

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### Biodata

<table>
<thead>
<tr>
<th>Name</th>
<th>Restu Ria Wantika</th>
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<tr>
<td>Born</td>
<td>Surabaya on November 22, 1989.</td>
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<td>Year</td>
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<tr>
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<td>Year</td>
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</table>
SAVI APPROACH TO INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)-BASED LEARNING PROCESS

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ABSTRACT

Nowadays, human’s life are dominated by Information and Communication Technology (ICT), for instance, if an event happens somewhere, the news about the event will be shared and spread out to everywhere within only a few minutes. Education especially learning activity is mostly influenced by cyber-world in the process as well as the results. As a result, ICT is used in the learning process, so that, the information can be shared to the students immediately. However, the learning process using ICT needs a suitable approach. In order to find out the best approach, the researcher tended to focus on SAVI approach as a strategy while using the ICT. This study aimed to determine whether SAVI approach was a suitable for the learning process using ICT. This research was a case study to find things that had to be designed in order to be eligible to ICT learning needs of students, and appropriate with the circumstances. There were several things that needed to be implemented for learning using ICT with SAVI approach, there are : 1) It is necessary to contract the course as initial assistance and setting up the scaffolding as a guide along the course so that students get a reference to learn to use ICT appropriately. 2) to provide flexibility to work together in small groups to get feedback for ICT learning process, 3) The lecturers provide a supportive learning environment for SAVI and 4) Learning is designed to clearly indicate the structure of the course outlines.

Keywords: SAVI Approach, Learning process, ICT

INTRODUCTION

Human life is now dominated by ICT, a moment of something elsewhere happen, is easily shared and informed. Education is particularly affected by this cyber things, especially the learning process and the learning outcomes. Maximizing the positive impact as well as reducing the negative, we need strategies and techniques while we are dealing with information communication technologies (ICTs) in learning. In this study the researcher tried to apply SAVI (Somatic-Auditory-Visualization-Intellectually) approach to use Information and Communication Technology (ICT) in learning process. Based on these conditions, ICT is used in learning so that the information can be communicated to students rapidly. Learning using ICT requires a suitable approach, for these reason, the researcher chose SAVI approach as a learning strategy. This study aims to determine the appropriateness of SAVI approach in the process of learning using ICT. This research is a case study to find several things that have to be designed in order to be eligible to ICT learning needs of students, and the circumstances.

SAVI

SAVI is an acronym of Somatic-Auditory-Visualization-Intellectually which adopted in Dave Meier (2005), claimed that learning based on activity means the students move actively-physically while they are learning. This activity involves all senses and mind during the learning process. However, the learning activity can not completed in instance by giving assignment, because the teacher should provide schedules or guidelines dealing with the assignments. These schedules will be the guidelines for the students to do intellectual activity as well as using their senses, Those step expected to produce a great impact on the process and learning outcomes.
SAVI is an acronym for Somatic-Auditory-Visualization-Intellectually, this approach adopted by the researcher from Meier (Dave Meier, 2005) stating that the activity-based learning means moving physically active when learning, by involving the senses as much as possible and make the whole body as well as mind engaged in the learning process. However, learning is not automatically increased by just telling the students to complete the tasks given, but also prepare a set of schedule / references to guide students, so that they can get along with the intellectual activities and use all the senses. Those steps expected to produce a great impact on the process and learning outcomes.

Actually, Dave Meier (2005) is the initiator to complete the theory of learning style created by Bobbi De Porter, in his book (Quantum Learning) he emphasizes three capital of learning, there are visual capital, auditory capital and kinesthetic capital (somatic). Each of the learning style has its own characteristic. 1) Students with visual capital like to learn with pictures, graphics as well as drawing diagrams, reading words, learning materials with words, watching movies, books, and posters; 2) Students with physical learning (somatic) according to Collin Rose (2003), are learners that prefer to underlining text, scrawling, drawing, etc. So that, these students tend to have the practice learning by themselves. 3) Students with auditory learning prefer to read the keys of the text, record the text, gaining new information from oral explanation. Dave Meier also purpose the style of intellectual learning (2005), the learners who use their mind and intelligence to create connections, meanings, plans, values, and think over experiences. Furthermore, it means that intelligence is part of creating, thinking over, create meaning, and solving problems. These are the wisdom that use the mind to change experience to become a knowledge, as well as knowledge that becomes an understanding to make wisdom.

These are examples to create activities along with the style of learning:

<table>
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<tr>
<th>Style of Learning</th>
<th>Activities</th>
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| Somatic           | Student can move if they:  
|                   | 1. Make models of process or procedure  
|                   | 2. Create pictograph and peripheral  
|                   |   3. Show/ make a role play about process, system, as well as a concept  
|                   |   4. Gain experience, then tell or reflect to the class about it  
|                   |   5. Do the learning active training (simulation, games in learning and etc.)  
|                   |   6. Do a field studies, write the report and discuss about it  |
| Auditory          | Starter Ideas to develop auditory tools for learning  
|                   | 1. Invite the student to read loudly reading text, such as a computer manual book  
|                   |   2. Tell stories that have values related with the theme of learning  
|                   |   3. Students asked to work in pairs and discuss the details as well as create the steps  
|                   |   4. Students asked to do skill practice or role playing a certain function by explain briefly and details about what they do  
|                   |   5. Students asked to work in groups and discussing long term plans while finding solutions  |
| Visual            | Things that we can do for visual learning process:  
|                   | 1. using pictures, metaphors, and analogies  
|                   | 2. provide presentable graphics  
|                   | 3. 3D tools as the teaching aid  
|                   | 4. Dramatic non verbal language  
|                   | 5. lively stories  
|                   | 6. Pictograph creation by the students  
|                   | 7. Field study  
|                   | 8. Colorful decoration  
|                   | 9. Icon or tools for works  |
| Intellectual      | Intellectual aspects will be trained well if the teachers involve the students in these activities:  
|                   | 1. solve the problems  
|                   | 2. analyze experiences  |
3. do strategic plans
4. emphasize creative ideas
5. find and maintain the information
6. make the questions
7. apply new ideas for the work
8. create meaning (privately)
9. foresee implications of ideas

(adopted from http://roebyarto.multiply.com/journal/item/21)

**ICT (INFORMATION AND COMMUNICATION TECHNOLOGY)**

**UNIPA’s program : UNIPA SURABAYA goes to E-campus**

**E-Campus** : a term that used by university which use ICT for academic activities

Activities in E-Campus :
- Distance learning (E-Learning/ Virtual Class)
- Online Test and evaluation
- Announcement for evaluation result, online student-teacher academic interaction (academic adviser)

**Distance Learning (E-Learning/ Virtual Class) – 1**

**Distance Learning (E-Learning/ Virtual Class) – 2**

**Skema Pembelajaran Jarak Jauh**
Distance Learning (E-Learning/ Virtual Class) – 3

The things that should be prepared:

a). Lecturer :
- prepare the learning materials (Content).
- provide learning services to the students (user) by using ICT

b). User/students :
- self motivated, willingness, and skill to deal with ICT

c). Provider (university/school) :
- analysis of requirements for create E-Learning → SOP → ISO

Learning Evaluation
Distance Learning need to prepare this for evaluation:
1) Conventional Evaluation Learning (local user)
2) Online evaluation

CONCLUSION
Optimization learning process as well as the outcome by using ICT which combined with SAVI Approach is a possible solution to maintain. This will have better result if the teachers and provider have prepared 1) class schedule and agreement as the milestone and guideline to be used in the whole year. This guideline will help students to use ICT as expected. 2) Give flexibility to work in small groups, feedback and comments for the class during the session or after the class over. 3) Teacher and provider (university) provide a SAVI supportive environment. 4) The learning materials and programs designed with explicit outcomes included E-Campus goal, as written in Basic Course Outline. These E-Campus program will be succeeded if these criteria fulfilled. These are : 1. Maximum use of technology. 2. information
reachable access (anytime, anywhere). 3. Paperless (all document can be reached and downloaded). 4. Self access terminal. 5. Integrated System needed (user needed).

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http://roebyarto.multiply.com/journal/item/21

BIO DATA

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THE STUDY OF THESIS ABSTRACTS WRITTEN BY STUDENTS OF ENGLISH EDUCATION PROGRAM AT UNIVERSITY OF PGRI ADI BUANA SURABAYA

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ABSTRACT
Writing thesis abstract is a brief written summary of the objectives, methods, results and conclusions of research that should be written by students to complete their academic writings. However, many abstracts do not include all the elements necessary to understand what has been done and found. Some thesis abstracts are disorganized clearly and accurately to the content of the thesis. Thus, this study describes how the components of thesis abstracts are written by students of English Education at University of PGRI Adi Buana Surabaya. The researchers used qualitative description to describe the data that consisted of words, phrases, and sentences related to the research questions, while the data source was the thesis abstracts written by students of English Education Program. The instruments of research in this study were an eligibility rubric to observe, classify, and analyze data based on the research questions. In collecting the data, the researchers collected thesis abstracts by using purposive sampling. Then they were analyzed based on the previously-proposed theory. The results showed that the components of students’ thesis abstracts varied. They were less noticed on definite statements of the problems and also the implications. So, it can be concluded that the students need a guidance book to make their thesis abstracts.

Keywords: abstract, components

INTRODUCTION
Abstract is a brief summary or synopsis prepared with a special focus, aimed at a specific purpose. There are many functions of writing the abstract. Abstract can be used to complete the writing in getting a college degree, creative work, and reports of study abroad. The most common error is that an abstract does not include all the elements necessary to understand what has been done and found. It is not organized clearly and do not accurately reflect the contents. Writing abstract becomes one of the requirements for completing their academic writing. This should include all the things that students do in their research and provide all necessary information as a result of the research. Thus, the readers are easy to understand the content of writing. In addition, readers will be interested to read the thesis if authors or students can write their abstracts in good order. On the other hand, the importance of writing abstract is used to complete academic writing. Abstracts can be divided into three main component parts; (1) Introduction, (2) methodology, and (3) finding and conclusion. Tuckman (1972: 53). According to Ary (1990: 498), writing the abstract should include a statement of the definite description of the problem and research objectives, research methods, the main findings, conclusions and implications. In writing the abstract, the author should explain what researchers do, why and how to do it, what is found, and what is the significance of the research. So, based on the
The 8th International Conference on Educational Technology of Adi Buana (ICETA 8)
From analysis data, the writer concluded that kinds of social classes were reflected in Titanic movie through their language use. The researcher found five kinds of social classes are as follow : Upper Class, Upper middle class, Lower middle class, Working class and Under class

Paragraph above described the results of data analysis that was reflected through the use of language in the film Titanic. There are five types of social strata, namely the upper class, upper middle, lower middle, working class, and lower class. The results of the study were found based on the data analysis in a single paragraph. From the first obtained data, it had been found two components of thesis abstract. They were the purpose of research and research results while the components of research methods, conclusions and implications were not written in the abstract. The first paragraph described statements of problem. The second paragraph was the purpose of the study, while the third paragraph wrote about the result of research.

Second Data
From the second obtained data, there were four paragraphs in thesis abstract about the influence of English songs to listen to the students' skills. The first paragraph is described as follows;

As English is an international language in Indonesia, the people should prepare for the new era. There are four basic skills to learn English; listening, speaking, reading and writing. In order to learn English, the first thing to do is listen. Without listen, people did not know what the speaker want to do or want the listener to do. Learning other language is difficult especially for students who still have the lack score in listening. In this case, the researcher tries to give media in teaching learning to improve the students listening achievement. One of them is songs as media.

Paragraph above describes that English is the international language in Indonesia which should be prepared in the current era. There are skills of listening, speaking, reading, and writing. However, the first thing which must be trained is listening skill. By listening, people know what they should do during the conversation. Due to that, the researchers gave the media to enhance the ability to listen to students through songs of the English language. The first paragraph described the abstract description of the problem, but it had not been shown about definite statement or research question in focus of research. In the second paragraph can be described as follows;

Based on the background above, the researcher limits the study in order to give clearly research as the thesis object as follow “is there any influence of using songs on Students’ Listening Achievement at the Tenth Grade Students of MAN Sidoarjo?”. The researcher chooses two classes as sample, they are X IPS 1 as a experiment class and X IPS 2 as a control class. Each class consists of 30 students.

Paragraph above describes the limitation of the study to provide a clear explanation. Statement of the problem was: is there any influence to the use of song in listening skill of students in the class X as IPS 1 as experimental class and IPS 2 as a control class. Each class had 30 students. From the data above, the students wrote a statement for sure from the description of the existing problems in the second paragraph. The next paragraph can be described as follows;

The method of this research was quantitative and the data was collected by using pre-test and post-test. The data that was collected will be calculated to find the score and compare the both classes. The data was calculated with t-test formula in order to find the students’ achievement and the success of each class. From this research, it was known that the influence of using songs on students’ listening achievement at the tenth grade of MAN Sidoarjo.

Paragraph above describes the research method. It was quantitave design. The data collection were got through pre test and post test. Then, the collected data were calculated to get scores and comparison of these two classes by using T-test. From the explanation above, the students described the methods used in research, data collection, and data analysis by using pre and post
test and t-test to answer the research hypothesis. So that the components of research methods could be fulfilled. The description on the next paragraphs is as follows:

The result concludes that there is significant difference between the experiment and control class. The value of t-observed: 4.52 is higher than t-table:2.002. With the 68 degree of freedom (df) at significance level 5%, so we can conclude that t-observed > t-table. It means that (H0) refused and (Ha) accepted and there is the influence of using songs media on students’ listening achievement at the tenth grade of MAN Sidoarjo.

Paragraph above described the results of a significant difference between the experimental and control classes. Value t-test was higher than t-table so that the hypothesis was accepted. From the data above it can be concluded that there are findings and conclusions given in the writing of the thesis abstract. Components that are fulfilled during the writing of thesis abstracts drawn include a statement surely description of the problem, research methods, research results, and conclusions. The unfulfilled component that was not written was implications.

Third Data
This third data describes the Analysis of errors in writing recount text using the past tense grammar written by students of class VIII SMPN 2 Sedati. Such data can be described as follows;

This study was carried out to find empirical evidence of the most common errors in writing recount text using simple past tense made by the eight grade students at SMPN 2 Sedati. The objective of this research is to identify the types of errors find in writing recount text using the simple past tense made by eight grade student at SMPN 2 Sedati.

Paragraph above explains that the research was done to find common mistakes in grammar writing recount text using past tense. The purpose of research was to identify the kinds of errors in writing of the recount text. From the above data it can be seen that there is a purpose of the study presented clearly but there has been no definite statement about the description of the problem. In the next paragraphs written as follows;

The method used in this study was qualitative. The qualitative design applied in this study was case study. Furthermore, the subject of this study was first year students of eight grade which consisted of 30 students. The data were collected through test

Paragraph above identified national quantitative research methods that used case studies. There were 30 first-level students in the study participated in test. So, the components of research method had been fulfilled in making abstract. In the next paragraph described as follows;

The result of the error analysis process showed that students committed error into four types: omission, addition, misformation, and misordering. From the frequency of each error types, misformation was the error which most frequently produced by the students. It took 51.16% of the total errors. Moreover, 29.06% errors fell into omission and 18.61% errors fell into addition; whereas, for ordering, it only took 1.16%. These errors were conducted because most of the students were still influenced by their mother tongue and their Indonesian way of thinking.

The paragraph above describes the results of the analysis in the form of error; omission, addition, misformation, and misordering. Every kind of error expressed in percentage to determine the quantity of errors. The last line also stated that the errors were influenced by mother tongue and pattern thought of Indonesian they used. From the results above, the students wrote the results of research and conclusions. Components that were not written from the third data above was certainly a statement about the description of the problem and implications

Fourth Data
The fourth data was concerning the oracle in Ban Ki-Moon's Speeches on Political and
Economic forum. In the first paragraph of the abstract as follows:

The purpose of this study was to analyze the speech acts in Ban Ki-Moon's speeches in Politic and Economic Forums by using Searle’s theories in Yule and Cutting’s theory about speech acts and Five Macro Classes of speech acts. The writer chooses Ban Ki-Moon’s speeches, thus it is the distinctive case which always implement their various languages

Paragraph above describes the purpose of the study to analyze the speech act in Ban Ki-Moon's Speeches in Politics and Economics forum. By using Searle's theories in Yule and Cutting's, there are five classes of speech acts Macro. Students also set out the reasons why choosing Ban Ki-Moon's speeches as a research object with multiple languages. From the paragraph above, the student wrote the purposes of research. In the next paragraph was written as follows;

The study used a descriptive qualitative method, which means the data were analyzed qualitatively since the data for speech acts are usually in the form of words or utterances. This study was done by classifying and analyzing those objects. This research showed that there were speech acts in Ban Ki-Moon’s speeches.

The paragraph above describes a method of research by using quantitative descriptive design. The data were in the form of words and speech or utterance. The data was classified and analyzed. So that the components abstracts of research methods in the abstract has been written by students. The next paragraph is written as follows;

The findings showed that there were various types of speech acts in accordance with Searle’s theories in Yule and Cutting's theory. The conclusion revealed that (1.) There are four kinds of Five Macro Classes of speech acts based on Searle’s theories in Levinson and Yule’s theory. (2.) It can be inferred that among the three kind of speech acts (i.e., locutionary acts, illocutionary acts and perlocutionary acts) and the two of certain structure (i.e., direct and indirect speech). Referring to the result of the analysis, it is found out that Ban Ki-Moon performs illocutionary acts on the speeches. The locutionary acts based on Yule’s theory found in the analysis are expressive, commissives, representatives and directives. Based on the finding and discussion and conclusion, it is recommended that Ban Ki-Moon’s speeches should emphasize more on the aspects or clarity and understandability. Finally, it is hoped that this study will be useful for further speeches research.

From the paragraph above can be seen that there are three types of speech acts, namely locutions, illocutionary, and perlocution. In each of these speech acts are expressions that include expressive, comisive, representative, and the directive indirectly or directly. Research component had been written in the abstract above. In the last sentence of the abstract explained that the results of this study may be useful for research on speech acts for further study but what the student wrote about implication did not represent components that should be written in making abstract. The implication is the impact or changes expected by the researchers of the research found. So, the abstract components fulfilled in data above that all four components of the research objectives, research methods, and research results. While the components of the thesis abstract which had not been inserted were research questions, conclusions and implication of research.

Fifth Data
The fifth data which was obtained concerning the oracle of a Joko Widodo in the Economic Forum. It can be described as follows;

The purpose of this study was to analyze the speech acts in Joko Widodo's speeches in Economic Forums by using Austin and Searle’s theories in Levinson and Yule’s theory about speech acts and Five Macro Classes of speech acts. The writer selects in Joko Widodo’s speeches, thus it is the distinctive case which always implement their various languages. For this purpose, the statements of the problems were formulated as follows: (1.) What types of speech acts according to the classification of illocutionary acts are used in Joko Widodo's
speeches in Economic Forums? (2.) How are those illocutionary acts related to the main message of the Joko Widodo’s speeches in Economic Forums?

Paragraph above describes the purpose of the study presented in the Economic Forum using Austin and Searle's theories in Levinson and Yule's to analyze the data. In the next sentence, there is a definite statement about the description of the problem. The are the type of illocutionary speech acts contained in speech Joko Widodo in the economic forum. Definitely the statement about the description of the problem is about how the illocutionary speech act is linked to the content of the message contained in the Speech delivered by Joko Widodo in Economic Forum. So from the description above statement description of the problem and research objectives can be fulfilled. The next paragraph is as follows;

In response to these questions, the study used a descriptive qualitative method, which means the data were analyzed qualitatively since the data for speech acts are usually in the form of words or utterances. This study was done by classifying and analyzing those objects. This research showed that there were speech acts in Joko Widodo's speeches.

The data above describes the research method. It used descriptive qualitative method because the data presented in the form of words and utterances spoken. It can be known from the paragraph above, the research methods in the abstract components can be stated clearly. The last paragraph in the fifth data is as follows;

The findings showed that there were various types of speech acts in accordance with Austin and Searle’s theories in Levinson and Yule’s theory. The conclusion revealed that (1.) There are four kinds of Five Macro Classes of speech acts based on Austin and Searle’s theories in Levinson and Yule’s theory. (2.) It can be inferred that among the three kind of speech acts (i.e., locutionary, illocutionary and perlocutionary acts), and the two of certain structure (i.e., direct and indirect speech), illocutionary acts have more roles and are the main purposes of speech acts to convey someone’s intended meaning to others. Based on the finding and discussion as well as conclusion, it is recommended that Joko Widodo’s speeches should emphasize more on the aspects or clarity and understandability. Finally, the present study hopefully provides a source for further research.

Paragraph above describes the results of research. There are different types of speech acts when analyzed using the theory of Austin and Searle in Levinson and Yule. The results of the study above show that there were four types of macro classes of speech Joko Widodo on Economic forum. Besides the role of illocutionary speech act either directly or indirectly had more important role than in the other two speech acts like locutions and perlocution. In the last sentence researcher also concluded that the speech delivered by Joko Widodo was able to give more emphasis to the aspect of clarity and ease of speech understanding. The sentence was able to represent the component in making abstract conclusions. From the above, data can be noted that the abstract components contained in the manufacture of the abstract above include definite statement about the problem, purpose of research, research methods, results, and conclusions. Component that had not been written was components implications.

The discussion of this research related to the components of thesis abstracts written by the students of English Education Program is that; The theory stated by Ary Donald (1990:498), there are five components of thesis abstract. They are a statement of the definite description of the problem and research objectives, research methods, the main findings, conclusions and implications. The component which the student ignore is about writing the implication. Additionally, the student did not pay attention to questions which must be stated before the purpose of the research. They need to state because the reader can find easily to the result of research when the researcher states the research questions. Moreover, the conclusion could be withdrawn in a clear logical order after knowing the research questions and the result of research. Then, the implication of the research could be developed after knowing the result conclusion. The thesis abstracts’ components made by students of English Department at PGRI University of Adibuana Surabaya are various. They only consist of two components of thesis
abstracts (statement of the problems and the result of research- Research Method and Result of research). In addition, Students thesis abstracts consist of three components involving statement of the problem, research method, and result of research. The most complete component of thesis abstracts written by the students consist of four components involving statement of the problem, research method, result of research, and conclusion. The only component left by students is implication which is function to state the impact of research after knowing the result of the research.

CONCLUSION
The conclusion of the research is that students need a guidance book to make the more complete thesis abstracts components. Incomplete components of thesis abstracts made by the students create the various formats of thesis abstracts. The contents of the thesis could be understood well briefly when the thesis abstract is written by using the complete components involving the statement of problems, research method, result of research, conclusion, and implication of the research.

REFERENCES

Biodata
Rikat Eka Prastyawan is an english lecturer in English Education Program at Adibuana University of Surabaya after getting master degree in 2011 in Postgraduate Program of Surabaya States University. His main interest is Teaching Language Skills and Components.
IDENTIFICATION OF WIND SPEED AS RENEWABLE ENERGY POTENTIAL FOR ENVIRONMENTAL EDUCATION OF FAMILY SUPPLY ENERGY IN MLIRIPROWO VILLAGE OF SIDOARJO REGENCY

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ABSTRACT

Environmental Education is the issue in the era. We can simply use the wind energy because the wind is considerably available on the surface of the earth. The state of the wind has the variation condition, that is why it needs identification. The research preferred to wind speed priority. The area of Mliriprowo village is delta of Brantas river, Porong basin are the plant of wind farm along 25 km to the beach of Sidoarjo. The wind speed is frequent in the morning and the evening. The measurement will do with 16 point of measurement with the distance of 100 meters. The goal of this research was to make mapping of wind potential of renewable energy of family supply of energy scale. The type of research was explorative that explored the nature potential that returned to be useful. The data collection method used was a direct survey on the plant to measure wind speed, the return of measurement produced has mapping of wind speed. The descriptive analysis was to relate wind speed and wind energy potential to electrical energy. The research has blue print of specification of measurement as a reference of wind turbine education for wind farm design.

Keywords: renewable energy, wind turbine, environmental education

INTRODUCTION

Mliriprowo village are the end of Brantas river delta. In this place Brantas river divide in two river, emas river and Porong river. Emas river along side into Surabaya and Porong river side to Porong city. In the hill l of Porong river have land of open space along 25 km to the beach road map of the research start with DosenPemula 2013 with characteristics of identification wind speed on University of PGRI Adi Buana Surabaya. And next to JIARiefRahman Hakim Surabaya on 2015 instalation of street lighting use wind speed energyas the next research of dosenpemula 2015 thats identification of wind speed AriefRahman Hakim street Surabaya. This research in Mliriprowo village Sidoarjo district. The return of identification will get the data of wind speed at the point of measurement for family supply of energy, wind turbine instalation need this data from the wind reference ([1]). Problem identification will describe that variables which effect like higher factor, timing duration the climate of supervision. The goal of this research want to produce of the map of wind potential on Mliriprowo village at Sidoarjo district. In the future we have the design of energy supply needed on governor energy supply needed of renewable energy. Proposal of wind turbine instrument. On the research of R.D.Fernandez, R.J.Mantz, P.E.Battaioatto, [1] on Argentina wind farm.

The author work the metode used measurement the wind speed and analysis the result of measurement. And the conclusion is the importance result to the environmental educations for energy supply of family scale for renewable energy.

Argentina are the one of country have wind farm [1]. The wind have value of energy has the formula in equation (1) that:

\[ P = \frac{1}{2} \rho A C_p v^3 \]  

(1)
With $P$ is the power of wind which variable specific mass of air $\rho$, the area of line wind of $A$, power coefficient factor $C_p$, wind speed of $v$. The value of power will get from the torsion from the wind as the effect generator turbine generator and electric, on reference [2] from this equation

$$\tau_A - \tau_e = I\omega + b\omega$$

With $\tau_A$ are generator torsion and $\tau_e$ are electric torsion as the effect of magnetic flux that perpendicular to area of generator winding and the value of the torsion difference that result the circle acceleration that product by insertion and rotary speed and product by friction coefficient inertia. With generation torsion that result by

$$\tau_A = \frac{N_2}{N_1} \tau_a$$

Torsion generator from generator torsion. $\tau_a$. And electromagnetic force with Faraday law equation:

$$\varepsilon = -N \frac{\partial \phi}{\partial t}$$

that depend on winding $N$ and the flux per second $\frac{\partial \phi}{\partial t}$. This result on reference [3]. and value of generator variable of power still depend on efficiency. On reference [4] the aerodynamic of wind have the effect in design character wind turbine. That wind speed mapping very useful. Wind mapping also very useful for design of the higher of wave sea. [5]. The next useful of wind mapping to design power of frequency load of wind on reference [6]. On mitigation of storm need the load of wind flow to recommendation

**RESEARCH METHODOLOGY**

The type of research is exploratif that explore the nature potential of wind that blow in farmwind can use to the power of wind:

Research algorithm can be decide to: decide the variable measurement like wind speak, narrow of speed, and the higher of place.

1. Decide to time measurement duration, range of measurement time, the climate, and time of measurement in the morning or evening
2. Type of research, type of data collection, data analysis and resume of identification. Resulting and blue print.
3. Design of research as the place have wind speed at higher place on 2 meters the time duration about 2 weeks,
4. Data analysis and conclusion of wind mapping and potential on Mliriprowo village Sidoarjo district.

The result of analysis that available on instrument specification on wind turbine that need of the consumer of electrical energy.

![Figure 1 Result of measurement 1](image-url)
Chart of measurement show the trend that means the longer and the bigger of wind speed with adder position to 16th point of measurement. The highest value at 16th position that 9.64 m/s. And the position that 5 m/s or more. This research at 7th up to 16th.

Table 1 Measurement 1

<table>
<thead>
<tr>
<th>Point</th>
<th>Higher 2 m</th>
<th>Time duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>456</td>
<td>12.35 – 12.40</td>
</tr>
<tr>
<td>2</td>
<td>389</td>
<td>12.45 – 12.50</td>
</tr>
<tr>
<td>3</td>
<td>439</td>
<td>12.55 – 13.00</td>
</tr>
<tr>
<td>4</td>
<td>373</td>
<td>13.05 – 13.10</td>
</tr>
<tr>
<td>5</td>
<td>395</td>
<td>13.15 – 13.20</td>
</tr>
<tr>
<td>6</td>
<td>420</td>
<td>13.25 – 13.30</td>
</tr>
<tr>
<td>7</td>
<td>532</td>
<td>13.35 – 13.40</td>
</tr>
<tr>
<td>8</td>
<td>556</td>
<td>13.45 – 13.50</td>
</tr>
<tr>
<td>9</td>
<td>624</td>
<td>13.55 – 14.00</td>
</tr>
<tr>
<td>10</td>
<td>712</td>
<td>14.05 – 14.10</td>
</tr>
<tr>
<td>11</td>
<td>726</td>
<td>14.15 – 14.20</td>
</tr>
<tr>
<td>12</td>
<td>772</td>
<td>14.25 – 14.30</td>
</tr>
<tr>
<td>13</td>
<td>804</td>
<td>14.35 – 14.40</td>
</tr>
<tr>
<td>14</td>
<td>865</td>
<td>14.45 – 14.50</td>
</tr>
<tr>
<td>15</td>
<td>932</td>
<td>14.55 – 15.00</td>
</tr>
<tr>
<td>16</td>
<td>964</td>
<td>15.05 – 15.10</td>
</tr>
</tbody>
</table>

Measurement table can be chart from figure

Table 2 measurement 2

<table>
<thead>
<tr>
<th>Point</th>
<th>Higher 2 m</th>
<th>Time duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>506</td>
<td>12.40 – 12.45</td>
</tr>
<tr>
<td>2</td>
<td>239</td>
<td>12.45 – 12.50</td>
</tr>
<tr>
<td>3</td>
<td>289</td>
<td>12.55 – 13.00</td>
</tr>
<tr>
<td>4</td>
<td>303</td>
<td>13.05 – 13.10</td>
</tr>
<tr>
<td>5</td>
<td>325</td>
<td>13.15 – 13.20</td>
</tr>
<tr>
<td>6</td>
<td>330</td>
<td>13.25 – 13.30</td>
</tr>
<tr>
<td>7</td>
<td>422</td>
<td>13.35 – 13.40</td>
</tr>
<tr>
<td>8</td>
<td>526</td>
<td>13.45 – 13.50</td>
</tr>
<tr>
<td>9</td>
<td>664</td>
<td>13.55 – 14.00</td>
</tr>
<tr>
<td>10</td>
<td>722</td>
<td>14.05 – 14.10</td>
</tr>
<tr>
<td>11</td>
<td>636</td>
<td>14.15 – 14.20</td>
</tr>
<tr>
<td>12</td>
<td>552</td>
<td>14.25 – 14.30</td>
</tr>
<tr>
<td>13</td>
<td>744</td>
<td>14.35 – 14.40</td>
</tr>
<tr>
<td>14</td>
<td>835</td>
<td>14.45 – 14.50</td>
</tr>
<tr>
<td>15</td>
<td>947</td>
<td>14.55 – 15.00</td>
</tr>
<tr>
<td>16</td>
<td>844</td>
<td>15.05 – 15.10</td>
</tr>
</tbody>
</table>

There are sixteen point of measurement that take on the fifth day for that sample on the table 1, table 2 that can be charged on figure 1 and figure 2. The measurement are done in the afternoon on July 2016 at the Basin of Porong of Mliriprowo village Sidoarjo district. The wind blow from the river to the basin at wind farm.
DISCUSSION
There are 16 point of measurement on table 1 and table 2 that show the value of wind speed, the wind speed can be interpreted into the energy. The energy is renewable energy that green energy to environmental. So the supply from the wind energy have the variation kind of useful. We can divided into 3 kind of useful. The first is the wind speed under 5 m/s. The wind speed on this, can not capture to wind turbine, the second is the wind speed from 5 m/s to 20 m/s, the wind speed on this can capture by the wind turbine. The third is the wind speed upper 20 m/s. The wind speed on this can be generated the storm and damage the hazardous area. Based on the three divided, we can describe that the measurement on table 1 and table 2 priority only the measurement the 8th point to 16th point that can used as the energy supply to family energy supply. And so the first point until the 7th can not convert to the energy supply.

CONCLUSION
Conclusions to proportion the renewable energy supply to family environmental education are on measurement on the 8th and 16th. The first until the seventh of measurement have the results to environmental fresh blowing eventhough can not supply of the renewable energy. The environmental education family supply can use the renewable energy without depending on the energy that usually have the polution.

ACKNOWLEDGEMENT
We acknowledge to Electro Laboratory of UNIPA Surabaya and sociate of Mririprowo village to measure in the place.

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1. Kilian, “Modern Control Technology and Components System”, Delmar (mo)


Biodata

Rony Haendra Rahwanto Fora is lecturer of Electro Department, University of AdiBuana Surabaya. He is degree on INSTITUTE TECHNOLOGYOF SURABAYA physics Engineering and Master Degree on Electro department. Research on identification of wind speed on Unipa Surabaya on 2013, Arief Rahman Hakim Street of Surabaya on 2015, and Mliriproeo village Sidoarjo district on 2016
ABSTRACT

Learning to paint with colored pencils material is easier than the other dyes for students, especially for senior high school students. However, in the practical activities, for senior high school students, painting with the colored pencils material requires techniques and skills in the making and directing efforts by techniques of mixing colors so that a painting has aesthetical values. This research was conducted on XI-grade of SMA Negeri 9 Makassar. The population consisted of 122 students of class XI of SMA Negeri Makassar, namely class XI IPA 1, XI IPA 2, IPA 3 XI, and XI IPA 4 with a total sample consisted of 40 students. The purpose of this study was to determine the ability of students to learn painting with color pencils material and the factors that affect learning ability in painting with colored pencil media. To collecting data, observation and practice tests were used. The data from the observation techniques and practice tests were analyzed using quantitative analysis techniques in a variety of percentages. The results of the data showed that in general the students were quite capable of painting with colored pencil materials. The factors that affected the ability of students in painting using colored pencil media were lacking of knowledge of students about the elements in the painting, and the lack of student mastery of the use tools and color materials in painting.

Keywords: learning to paint, colored pencils material

INTRODUCTION

Art education is a form of learning that effort to develop one's personality in order to prepare people to become citizens of an independent and accountable through activities that have to do with the feeling of beauty through the media statement of line, color, texture, shape, volume and space. Art education is implemented in the form of learning activities basically include learning theory, appreciation and art skills, especially learning that involves the painting.

In general, teaching art in schools are dominated by the practice studio experience based on the other things like ability of students, availability of time, and the facilities. It aims to develop students' skills in the creation of works of art and theoretical knowledge to appreciate. Event working art starts from the sensitivity of students to value the beauty around him. Material from outside it, digested in itself is processed into a form that is created, and then pours into a form of art. The classification of types of art work is found in sculpture, sculpture, decorative arts, painting, and printmaking. However, the focus of this research is the painting. Painting activities is not a stranger to the students; therefore the level of education had previously introduced knowledge of painting. In painting, the students have the freedom to express ideas and soul in a work art order to create an inner satisfaction to their self and to inspire the soul of the audience. Tools and materials can also stimulate students' motivation to work. The tools and materials used in painting consists of pastels, colored pencils, watercolors, oil paints, batik and other mixed materials (mixed media). Some of the tools and materials, the authors focus only on one medium is colored pencil.

In general, learning to paint with colored pencils material category is easier than the other dyes for students, especially high school students. For high school students, painting with colored pencils material requires technique and skill in the making and directing are pursued by blending colors to the painting can be aesthetically value. Therefore, students who want to have
the ability to paint with colored pencils material required to continue to practice applying variety of colors so that students can have the ability to know the simple color variations.

Based on these descriptions, the authors are interested for doing this research to examine and determine the extent of students’ ability to work and to create a painting with a medium color pencil based on the principles in painting, especially the use of light and dark (color mixing), composition, and placement of objects within the image are, and to know the students’ ability to imagine and express his ideas in painting. In addition, to determine the factors that affects the ability of students in painting with colored pencil media.

LITERATURE
Definition of Teaching and Learning
Learning is a process of people to achieve a wide range of competencies, skills, and attitudes. Learning is also the activities a person to obtain a change in him through training or experience. Baharuddin and Esa Nur Wahyu (2009: 15), explains about some of the characteristics of Learning include:

a. Learning is characterized by a change in behavior (behavior change), which means that the results of the research can only be observed in the behavior, ie there are changes behavior from not know to know, from unskilled become skillful.

b. Changes in behavior are relatively permanent, which means that the change in behavior that occurs because studying for a specified time will be fixed or unchanging. However, changes in behavior will not be stuck for life.

c. Changes in behavior should not immediately be observed during the learning process is ongoing, is a potential behavioral changes.

d. Changes in behavior are the result of training or experience.

e. Experience or training can provide reinforcement. Something that strengthens it will provide encouragement or push to change the behavior.

Definition of Painting and Drawing
In a large dictionary Indonesian Balai Pustaka explains that: the picture is a copy, items (people, animals, plants, etc.) are made with pencil on paper. Meanwhile, the draw is to make a picture or painting. Moeliono (1989: 250). Furthermore, Sofyan Salam (2001: 4) argues understanding of the art of drawing and painting as follows:
The art of drawing is usually dominated by linear scratches produced by a pencil, pen or marker (marker). Including the state of the image to explain something or idea (drawing diagrams, construction drawings, illustrations), funny pictures to entertain (cartoon), images to criticize (caricature), or an image that simply created as an outpouring of feeling alone. Meanwhile, art painting is usually refers to the work produced through scratches relatively wide color produced by a brush or palette.

As according Soedarso SP. (1990: 11), painting is an aesthetic experience through pronunciation in two-dimensional by using lines and colors. If a painting is more prominent element of the line as the works created with a pen or pencil, that work is called “picture”. Meanwhile “painting” is an element of color is more powerful. Basically drawing and painting have the same creation process that is giving strokes of color on a flat paint. When drawing is dominated by a pencil, pen or marker, then the painting is characterized by a kind of painting using a brush.

Elements - Elements and Principles of Painting
There are elements - elements and principles that need to be known in painting, among others: a. Line
The lines are a few points which is continuous with one another. Line in general is the limit of the boundary shapes. Moreover, in psychology line can be described the character of a person based graffiti line shape is created. In painting, the line is the most important because the line can define fields, forms, and so a lot of space to give a variation on a painting (Nooryan Bahari, 2008: 98).
b. Form
Forms are all what we see, objects, points, lines and areas of measurable magnitude, can be viewed in color and texture can be perceived (J.Budhi Raharjo, 1987: 43). In painting, the definition of form is a depiction of something that can be seen by the eye then it felt moved in the image plane through the incision, stripes, color, etc. With the naked eye forms are found in nature can be seen in a real and varied nature of both the color and tone, so the form of the object captured by the eye of nature can serve as inspiration in creating a painting.

c. Space
The space is a mix of their six sides, to form three-dimensional objects. Space is unlimited and undisturbed. As well, in a space painted elements are just as fanciful notion as a painter working at the top of the field of two-dimensional (J.Budhi Raharjo, 1987: 47). Elements of space in painting is the impression of the boundary formed by the breath of the object or objects and objects in the air outside of space the size of paper is used when we are painting.
The depiction of the existence of a space is closely related to the symptoms perspective, therefore, painting is a way to show something perspective object or objects drawn with the comparison based on the size and color and congruent with objects visible to the naked eye.

d. Color
Color is the most prominent. As in physics, color is the impression caused by light in the eye. According to the science of materials, color is a kind of dye pigments. In the paint color has an important role. With a color variation on a painting can give the impression of an object that is more vivid, and the technique of using dark colors with bright displays can create objects in the painting look real.
In color theory from Brewster it set of red, yellow, and blue as the primary color (primary colors), because these colors are individual color elements are not obtained from mixing other colors. All colors come from three primary colors, namely red, blue, and yellow. By mixing two primary colors with the same comparison, there will be three secondary colors (two colors); namely orange, green, and purple (red + yellow to orange, blue + yellow to green, red + blue to purple). With the color (color center) which colors created by mixing primary colors and secondary colors. Known as color between because these colors are among the first and second color on the color wheel Brewster (Abdul Aziz Said, 2006: 91).

![Color Wheel Model Brewster](image)

e. Composition
The composition is an important element in the creation of a work of art. A shape or object in the painting should be set placement order not to cause any irregularities, the point to get a view of harmonious balance. Composition means arrangement. In other words that the composition is the arrangement of the elements such that gives his impressions of indivisibility, rhythm, and balance in a work so that the work was complete, clear, and compelling. The composition of the painting will look beautiful if the rhythm is clear and varied and the composition has the center of attention (focus) and has a dynamic balance, so that the work would seem more alive.
The Concepts about Color Pencils
The term "pencil" comes from the Latin is *Pencillus* which means a small tail that is intended for brush to draw with ink. In middle of Europe, the term of pencil attached for drawing or painting tool that is popularly known as "Potlot" of the Dutch language "Pot" means a place and "Lot" means a significant lead. Pencil drawing tool whose use is relatively practical and easy to obtain (Sofyan Salam, 2001: 73). There are also various types of pencil graphite pencil i.e., Konte, and colored pencils.

In general, color pencil is favorite thing by many people because it offers a wide range of colors. Color pencil is usually packed in a box consisting of various types to contain 72 color options as well as easy and practical to use. Similarly, the use of the technique is almost the same color pencil with a pencil in general, but can be developed by mixing colors. The color mixing is done by making scratches parallel or intersecting of colors that want mixed. Mixing colors can also be done by mixing the powder contents of the desired color pencil for adding on the paper.

Besides the usual color pencil, there is also a kind of color pencils made from a material that will melt if it is given by water. This pencil can be referred as a watercolor in dry form and color. The benefit of color pencil is for settlement, provision of color in the image that has been completed. In this case, that the harder levels pencil, the more it can be used to produce smooth lines and thin. Meanwhile, the soft level pencil leads that can produce solid lines when pressed to produce the impression of dark colors, so if it is scratched is not pressed will produce a line of transparent or colored light.

**RESEARCH METHOD**
This research is quantitative descriptive research is research about the collected data related to students’ ability to do the learning painting with colored pencils media through observation and practice tests. The population in this research was all students of class XI IPA, SMA Negeri 9 Makassar totaling about 122 people. The results of the samples obtained are each classification grade XI respectively of 10 students. Bringing the total number of samples in this research were 40 students of class XI SMA Negeri 9 Makassar.

Data collection techniques used were test observations (observation) the organization of the practice of painting are held three meetings with the practice test twice. The process of implementation is done at random in each class will be researched besides that the writer is using practice tests and test documentation.

As for the ability of students in painting with color pencils can be seen from the value obtained through the practice test results painted using color pencils. The criteria for the assessment of mastery of tools and materials, the preparation of the composition, unity and accuracy of form, fit, perspective, proportion accuracy, balance (balance), the granting of darkness, and finishing.

A score or value which presented to demonstrate the student's ability to use the media to paint colored pencils, then can be made in the form of tables and analyzed using quantitative analysis techniques in a variety of percentages then described the test results to know what components are controlled and not controlled by the students concerned. To get the value of the average student, then the score is processed using the formula:

\[
\text{Mean} = \frac{\sum x}{N}
\]

Where: \(\sum x\) = the sum of each score of students in accordance elements assessed.
\(N\) = the total number of elements assessed.

Assessment work conducted by three students painting the assessment team based on the classification of the values below:
1. 8-9 = Very capable
2. 6-7 = Capable
3. 0-5 = Lack of Capable
Furthermore, determining that students who receive grades 6 and above were able to paint using colored pencils, while students who scored 5 down was not capable of painting with colored pencil media.

Based on test data using the students' skills in painting materials color pencil then presented below were the result data checks the value of the cumulative results of three assessment teams to paint test results using material colored pencils by Townsend and Burke (in Tangsi, 2007: 20) to process data and derive a percentage of a value, can be searched by the following formula:

\[
\text{Jenjang Persentil} = \frac{f_k}{N} \times 100\% 
\]

Ket. \( f_k \) (cumulative frequency) = the value obtained from the scores of students overall highest to lowest score  
N = total number of students

**RESULTS AND DISCUSSION**

Based on analysis of data obtained through observation and testing practices and documentation (student's work) as an instrument to collect data that in general the students quite able to master the technique of painting using colored pencil media. Although there are still some students who are less able to paint using colored pencil media. However, through regular practice and guidance from parents and teachers can help students in learning to paint using materials of color pencils.

<table>
<thead>
<tr>
<th>No.</th>
<th>levels of ability</th>
<th>Score</th>
<th>cumulative frequency (fk)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very capable</td>
<td>8 – 9</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Capable</td>
<td>6 – 7</td>
<td>19</td>
<td>72.5</td>
</tr>
<tr>
<td>3</td>
<td>Lack of Capable</td>
<td>0 – 5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td><strong>Jumlah</strong></td>
<td></td>
<td><strong>40</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

The description of the results of data analysis based on data test capabilities to paint using colored pencils media, showed that there were 6 (15%) of students who are very capable of painting with colored pencils material with weights ranging from grades 8 to 9, there were 19 (72.5%) students capable of painting with colored pencils material with weights ranging from grades 6 to 7, and 5 (12.5%) students who are less able to paint using materials of color pencils. In connection with this, it can be seen from the work of students who apply these elements in painting, among others:

a. Mastery of tools and materials to show that there were 6 students (15%) who received grades ranging from 8 to 9, there are 26 students (65%) that received scores ranging from 6 to 7, and there are 8 students (20%) who received grades ranging from 0 up to 5.

b. Preparation of the composition of the image indicates that there were 6 students (15%) who received grades ranging from 8 to 9, there are 31 students (77.5%) who received scores ranging from 6 to 7, and there are 3 students (7.5%) who scored ranges from 0 to 5.

c. The accuracy of the shape of the object indicates that there were 6 students (15%) who received grades ranging from 8 to 9, there were 24 students (60%) that received scores ranging from 6 to 7, and there were 10 students (25%) that received scores ranging from 0 to 5.

d. The accuracy of Perspective shows that there were 6 students (15%) who received grades ranging from 8 to 9, there were 24 students (60%) were got value ranging from 6 to 7, and there were 10 students (25%) that received scores ranging from 0 to 5.
e. The precision of proportions shows that there were 4 students (10%) who received grades ranging from 8 to 9, there are 31 students (77.5%) who received scores ranging from 6 to 7, and there were 5 students (12.5%) who received scores ranging 0 to 5.

f. The balance object painting shows that there were 10 students (25%) who received grades ranging from 8 to 9, there were 28 students (70%) that received scores ranging from 6 to 7, and there were 2 students (5%) who received scores ranging from 0 to 5.

g. Giving the dark light on an object painting indicates that there were 7 students (17.5%) who received grades ranging from 8 to 9, there are 26 students (65%) were got scores ranging from 6 to 7, and there were 7 students (17.5%) which received scores ranging from 0 to 5.

h. Finishing off painting the picture shows that there were 8 students (20%) who received grades ranging from 8 to 9, there were 20 students (50%) that received scores ranging from 6 to 7, and there were 12 students (30%) that received scores ranging from 0 to 5.

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Table 2. Scores Students In Color Pencil Painting Material Using Aspect Based Overall Rating
As there are factors supporting and inhibiting factors that affect the ability of students in painting with color pencils material. The supporting factors are generally facilities the tools and materials used by students in painting using colored pencils quite complete. Neither exemplification works of landscape paintings village could support the practice of class XI student of SMAN 9 Makassar in painting using colored pencils. Factors that affect the ability of students in painting with colored pencils material, i.e., students are not able to master the technique of using colored pencils as well as lack of knowledge of students about the elements of painting and used in the paintings. In addition, the lack of talent that can affect the ability of

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students in painting using colored pencils that make it difficult for them to work and learn the art of painting.

Figure 1. Practice using the media of colored pencils Painting by students of SMA Negeri 9 Makassar

Figure 2. The work of colored pencil media paintings by students of SMAN 9 Makassar in accordance with the criteria of the elements of painting
Figure 3. Results of color pencils media paintings by students of SMAN 9 Makassar which is not in accordance with the criteria of the elements of painting

CONCLUSION

Generally the students of class XI IPA at SMAN 9 Makassar considered quite capable of painting with colored pencil media. It can be seen through the students’ ability of students to apply elements of art in the visualization of painting works. These elements are the mastery of tools and materials, the preparation of the composition, precision of form, fit, perspective, proportion accuracy, balance, giving the darkness, and the final completion of the painting. Although there are still some students who are less able to paint using colored pencil media. Related to that, draw or paint a visual process that depends on our ability not only to see but also to visualize. In addition, painting activity involves thoughts and feelings to realize the works or creations of paintings. So as to develop creativity and the ability to paint, especially with the media color pencil, obtained the coaching and exercise routine and supported by tools, talent, attention, and interest in learning the earnest to the work produced have good quality.

REFERENCES

Sepbianti Rangga Patriani a lecturer in Fine Arts Education Department, University of Adi Buana Surabaya. She received her bachelor in Fine Arts Education, State University of Makassar and her Master Degree in Art Studies, Indonesian art institute of Yogyakarta. Authors interested in discussing research on learning to paint with colored pencils media at high school students. The author can be contacted by email at nirangga@gmail.com
LEARNING ON THE RIVER WATER TREATMENT

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Joko Sutrisno
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ABSTRACT
Increasing of human resources can be done by learning about river water treatment to reduce some of parameters referring to clean water criteria. Characteristics of river water are generally not safe enough according to the river water quality, in particular the clean water criteria. The decrease in some parameters that refer to clean water criteria can be done with a series of treatment of Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, Synthetic Resins cation and anion, and Reverse Osmosis done with bath reactor. The research objective is: the river water treatment to be clean water. The findings indicated that the treatment of Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, Synthetic Resins cation and anion, and Reverse Osmosis in river water can decrease parameters; Turbidity, color, iron, Total Hardness, Zinc, Sulfate, Organic Matter, Detergent, Total Coliforms.

Keywords: learning, river water treatment, clean water parameters, ion exchanger

INTRODUCTION
Background
One effort to increase human resources was passing learning in terms of river water treatment technology for example that condition of some areas in East Java, Indonesia still many who rely on river water as a feedstock for clean water needs. The river water is also a mainstay of raw materials for Drinking Water Company in Indonesia. This is because the interrelationship of three things mutually supportive, namely: 1). Sufficient quantity, 2). Better quality (than sea water), and 3). Flow rate fluctuations are relatively still can meet sustainability of production. The content of mud, a substance dissolved solids (TDS), and high turbidity in river water is a major problem in terms of initial processing for clean water purposes.

Surabaya River water’s conditions, East Java, Indonesia (time and location) of Fe content from 0.75-39.28 ppm, turbidity 71-345 NTU, DO 4.55-12.42 ppm, BOD 6.24-12.48, COD 20-260 ppm according to Putri, A. at al., 2013. A different location was reported (Priyono, T.S.C. at al. 2013); TSS (Total Suspended Solid) 2116.7 mg/l, Detergent 0.346 mg/l, bacteria E.Coli 50,000 jml/100 ml sample. Samples of Bengawan Solo river, Central Java, Indonesia, Boron exposure 0.57 ppm, Cadmium 0.10 ppm, Iron 0.442 ppm, Lead 0.442 ppm by Sulistiyanto, W. et al. 2007. (Purwoto, S. et al. 2014), concluded that; water treatment parameters removal using Sediment Poly Propylene, Carbon Block, Manganese Zeolite, Ion Exchange and Reverse Osmosis (RO) is; Total Dissolved Solid (TDS) 2686 ppm, Total Hardness 371.43 mg/L CaCO3, Chloride 1144 ppm, Coliform Total 4 MPN/100 mL, Iron 0:18 ppm, Sodium 737.70 ppm, Zinc 0:08 ppm, Sulfate 24.56 ppm, Organic Substances 15:03 mg/L KMnO4, and Detergent 0:10 mg/L LAS. The study results Purwoto, 2008, Synthetic Resin treatment may removal salinity brackish water of 484 mg/L of sample water salinity 1988 mg/L, and 457 mg/L for salinity of water sample 994 mg/L. While the quality standard requirements for clean water according to regulations health minister Republic of Indonesia number 416/Menkes/Per/IX/1990; Maximum Turbidity 25 NTU scale, Color 50 units PtCo, Iron 1 mg/L Fe, Total Hardness 500 mg/L CaCO3, Zinc 15 mg/L Zn, Organic Matter 10 mg/L KMnO4, Detergent 0.5 mg/L LAS, 50 total coliforms per 100 ml (MPN). Referring to previous studies and preliminary research, to decrease water parameters can be done with Coagulant Aid treatments, Silica Sand, Ferrolite, Manganese Greensand,
Synthetic Resins, and Reverse Osmosis.

**Formulation of the problem**
How large is parameter removal capacity of clean water in river water treatment using Treatment Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, Synthetic Resins, and Reverse Osmosis.

**Research purposes**
River water treatment to be clean water

**Benefits Research**
In an effort to overcome supply problems for river water users.

**THEORETICAL STUDY**

**Coagulant Aid**
Sucolite SP 211 as Coagulant Aid manufacturer in the form of a colorless and odorless; pH at a temperature of 20°C for 11-11.5; the specific gravity of 1.35 gr/cm³; Al₂O₃ content is 4.66%; pH of solution 2% 3.553, part of which is insoluble in water 0.060 %. Water from natural sources usually contain a lot of dissolved and suspended solids. Large suspended particles such as sand called discrete particles may be treated by sedimentation or filtration. Suspended particles smaller that are not easily deposited is called colloids. Colloidal particles can be processed by adding chemicals and then deposited on sedimentation and filter. Ferrolite serves to remove high levels of iron content (Fe), iron pungent odor, and Mangan, yellow on groundwater.

**Ferrolite**
Ferrolite function is to eliminate the high level of iron content (Fe), iron pungent smell, manganese (Mn ²⁺), yellow color on groundwater or river water. Ferrolite Usage: 1) The iron content can be alleviated by Ferrolite is a maximum of 20 ppm or less. While the content of KMn04 (Manganese) is 15 ppm and pH> 6.5. If the above conditions are not appropriate, can be done by means of oxidation pre treatment so that the iron content below 20 ppm, pH adjustment in order above 6.5 etc. 2) The granules Ferrolite has the advantage of a porous so it easily absorbs iron and manganese and is very stable as a filter media, both physically and chemically. 3) The material of which contains silica sand and siliceous high quality. 4) Excess Ferrolite during operation: a) the activation time media to trial first is very easy and very fast, b) when the washing is also very short compared to media other filters, c) except for special cases, generally do not need pre-treatment, d) the speed of water can 10-30 m3/h which is 2x the average velocity filter generally, e) coagulant is not required and this helps reduce costs, f) should only certain periods must wash and do not need to be regenerated with chemicals

**Manganese zeolite**
The raw water containing iron and manganese is passed through a filter bed that the filter media consisting of manganese-zeolite (K₂Z,MnO,Mn₂O₇). Manganese Zeolite serves as a catalyst and at the same time iron and manganese in the water are oxidized to form ferric oxide and mangandioksida insoluble in water.

The reaction is as follows:

\[ \text{K}_2\text{Z,MnO,Mn}_2\text{O}_7 + 4 \text{Fe(HCO}_3\text{)}_2 \rightarrow \text{K}_2\text{Z} + 3 \text{MnO}_2 + 2 \text{Fe}_2\text{O}_3 + 8 \text{CO}_2 + 4 \text{H}_2\text{O} \]

\[ \text{K}_2\text{Z,MnO,Mn}_2\text{O}_7 + 2 \text{Mn(HCO}_3\text{)}_2 \rightarrow \text{K}_2\text{Z} + 5 \text{MnO}_2 + 4 \text{CO}_2 + 2 \text{H}_2\text{O} \]

The reaction of iron and manganese removal with manganese zeolite is not equal to the ion exchange process, but it is a reaction of Fe²⁺ and Mn²⁺ with high manganese oxide (higher manganese oxide).

The filtrate is happening containing ferric-oxide and manganese-dioxide is insoluble in water and can be separated by sedimentation and filtration. During the process the reaction capability increasingly reduced and eventually become saturated. For regeneration can be done...
by adding a solution Kaliumpermanganat into zeolite which has been saturated so that it will be formed again manganese zeolite (K₂ZMnO₂Mn₂O₇) (Idaman Said, Nusa, 1999). Absorbent iron and manganese, in which the reaction of Fe³⁺ and Mn²⁺ in water with high manganese oxide (higher manganese oxide) to produce filtrate containing ferric-oxide and manganese-dioxide is insoluble in water and can be separated by sedimentation and filtration. Removal Mn²⁺ can be done with adsorbs by Manganese oxide in manganese oxide coated zeolite (MOCZ) (Taffarel, 2010).

**Characteristics Resin / Ion Exchange**

Strong acid exchange resins containing functional groups derived from a strong acid (usually sulfuric acid). Weak acid exchange resins containing functional groups derived from a weak acid (generally form a carboxylic or phenolic).

Strong base exchange resins containing functional groups derived from quaternary ammonium groups of type I and II, while the weak base exchange resins containing a primary amine, secondary and / or tertiary as functional groups. The performance of resin is an ion exchange process (Ion Exchanger) between cation-anion in anion-cation resin contained in treated solution. Ion exchange processes involving chemical reactions between ions in liquid phase with ions in solid phase. Specific ions in solution more easily absorbed by solid Ion exchange, and because elektroentalitas must be maintained, removing solid ion exchanger and exchanged ions in solution. In the process of demineralization, then as an example; cations Na⁺ and anions Cl⁻ aside from water and solid resin remove ion H⁺ in exchange for ion Na⁺, and OH⁻ exchanged Cl⁻ of water so that the content of Na⁺ and Cl⁻ in water be reduced or lost (Montgomery 2005). Nurhayati, I, at.al., 2014 concluded that: The process of treatment : coagulant aid, filtration using sediment polipropilena (SPP), and absorption using manganese greensand, then continued by Ion Exchanger using synthetic resin anion and cation resin. As a finishing treatment is filtration micro using membrane of Reverse Osmosis (RO) on water treatment brackish obtained on removal parameters: Chloride of 2028 ppm, Iron 0.22 ppm, Total Dissolved Solid (TDS) 3366 ppm, Total Hardness 621.43 mg/L, CaCO₃, Organic Substances 19.84 mg/L, KMnO₄, Zinc 0.08 ppm, Sulfate 40.46 ppm, and Detergent at 0.12 mg/L LAS. Sugito, (2014), the permeable membrane-based water treatment Ion Exchange combined with Electrodeionization (EDI) obtained values decrease: Total Dissolved Solid (TDS) 752 ppm, hardness 457.24 mg/L, CaCO₃, Nitrite 0.49 mg/L, NO₂-N, Zinc 0.07 ppm, Detergent 0.06 mg/L LAS. Turbidity 4.94 NTU scale, Color 40 unit PtCo, Iron 0.55 mg/L Fe, dan Sulfate 9.14 ppm. Purwoto, S. (2014) stated that Treatment: Sediment Poly Propylene, Carbon Block, Manganese Zeolite, Ion Exchange, and Reverse Osmosis (RO) can meet the requirements as clean water is able to reduce some parameters (amount); Total Dissolved Solid (TDS) 2686 ppm, Hardness Total 371.43 mg/L CaCO₃, Zinc 0.08 ppm, Sulfate 24.56 ppm, Detergent 0.10 mg/L LAS, Iron 0.18 mg/L Fe.

**RESEARCH METHODS**

**Equipment and Materials Research**

As learning in terms of river water treatment technology can be done where the main tool used in the processing of river water in this study are; suction pumps, submersible pumps, filter cartridges, filter housing, and print cartridge Fibre-Reinforced Plastic (FRP). This learning can be done by using a treatment; Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, Synthetic Resins cation and anion, and Reverse Osmosis.

**Table 1. Treatment Used Material Specifications**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coagulant Aid Sucolite SP 211</td>
<td>Sedimentation, coagulation</td>
<td>colorless and odorless; pH at a temperature of 20°C for 11-1.5; the specific gravity of 1.35 gr/cm³; Al₂O₃ content is 4.66%; pH of a 2% solution (pH 2% soluble in water) 3.553; the</td>
</tr>
<tr>
<td>Material</td>
<td>Process</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Silica sand</td>
<td>Mud filtration, filtration</td>
<td>Material from sand that contains silica and siliceous high quality</td>
</tr>
<tr>
<td>Ferrolite</td>
<td>Removal of Fe and Mn in water</td>
<td>Ferrolite porous granules have advantage of making it easy to absorb iron and manganese and is very stable as a filter media, both physically and chemically</td>
</tr>
<tr>
<td>Manganese Greensand</td>
<td>Absorption of iron and manganese</td>
<td>The reaction of Fe(^{2+}) and Mn(^{2+}) in water with high manganese oxide (higher manganese oxide) to produce filtrate containing ferric oxide and manganese-dioxide is insoluble in water and can be separated by sedimentation and filtration. Removal Mn(^{2+}) can be done with adsorbs by Manganese oxide manganese oxide coated zeolite (MOCZ).</td>
</tr>
<tr>
<td>Anion resin</td>
<td>Anion exchanger (decrease cations in water)</td>
<td>Thickness 60 cm</td>
</tr>
<tr>
<td>Kation resin</td>
<td>Cation exchanger (anion decrease in water)</td>
<td>Thickness 60 cm</td>
</tr>
<tr>
<td>Membrane Reverse Osmosis (RO)</td>
<td>Osmosis uses a semipermeable membrane</td>
<td>Semipermeable membrane is porous 0.0001 micron, TDS fluid maximum 15 ppm, iron levels &lt;0.1 mg/l, working with high pressure in the stages of the process through several stages of filtering, among others; cartridge(sediment), carbon block and granular carbon.</td>
</tr>
</tbody>
</table>

Referring to Table 1, the study treatment was done in a way; combination treatment, which Coagulant Aid and Silica Sand as Pre Treatment and that Real Treatment is; Ferrolite, Manganese Greensand, Synthetic resin anion and cation Synthetic Resin in series followed by a semipermeable membrane using membrane Reverse Osmosis (RO) with in the range Bath reactor.

Procedure Processing is done by using treatment: coagulation using Coagulant Aid, filtration of dissolved solids by silica sand, Removal of Fe and Mn using Ferrolite and Manganese Greensand, anion exchanger (decrease cations in water) using a resin anion exchanger cations (decrease anions in water) using cation resin.

Implementation Research

According to Figure 1, shown a series of water treatment equipment river in Bath reactor in series. Design model of river water treatment processing parameters based on clean water criteria with a series of seven treatments, namely; tank Coagulant Aid and Silica Sand in the filter housing as Pre Treatment, followed by Real Treatment using Ferrolite, Manganese Greensand, resin cation and anion resins and reverse osmosis membranes.
Figure 1. Design River Water Treatment Model

Information of Figure 1:
1. = treatment Coagulant Aid in the processed raw water reservoir
2. = Silica sand treatment on filter cartridge in filter housing tube
3. = Ferrolite treatment on FRP tubes
4. = Ferrolite treatment on FRP tubes
5. = anion resin treatment at FRP tubes
6. = Treatment cation resin in the FRP tubes
7. = Membrane Treatment Reverse Osmosis (RO)

S = Submersible Pump
P = Product
B = Booster pump RO

Flow refers to water treatment process in Figure 1, where the river water as raw water preceded by affixing Sucolite SP 211 as Coagulant Aid in the water tank (1), then treatment Silica Sand in filter cartridge in filter housing tube (2). Further consecutive treatment; Ferrolite on FRP tubes (3), Manganese Greensand on FRP tubes (4), anion resin in FRP tubes (5), and cation resin in FRP tube (6). As a finishing treatment is Membrane Reverse Osmosis (RO) (7).

Laboratory Test Results
Test parameters is done for; (a) samples of raw water, and (b) Results of treatment.

RESULTS AND DISCUSSION
Result
After treatment in raw water use; Coagulant Aid and Silica Sand as Pre Treatment and Real Treatment is; Ferrolite, Manganese Greensand, Synthetic resin anion and cation Synthetic Resin in series followed by a semipermeable membrane using membrane Reverse Osmosis (RO) within the range Bath reactor, carried out the parameters for the test; (a) Samples of raw water, and (b) The results of treatment.
Laboratory test results are presented in Table 2.

Table 2. Data Recap Lab Test Results Referring On Standard Parameter Clean Water

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Unit</th>
<th>Requirement Water</th>
<th>Raw Water</th>
<th>Treatment</th>
<th>RO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Clean *)</td>
<td>Odorless</td>
<td>Odorless</td>
<td>Odorless</td>
</tr>
<tr>
<td>A. PHYSICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Odor</td>
<td>-</td>
<td>Odorless</td>
<td>Odorless</td>
<td>Odorless</td>
<td>Odorless</td>
</tr>
<tr>
<td>2</td>
<td>Total Disolved Solid (TDS)</td>
<td>mg/L</td>
<td>1500</td>
<td>304</td>
<td>2280</td>
<td>360</td>
</tr>
<tr>
<td>3</td>
<td>Turbidity</td>
<td>NTU Scale</td>
<td>25</td>
<td>154</td>
<td>5.98</td>
<td>3.15</td>
</tr>
<tr>
<td>4</td>
<td>Flavor</td>
<td>-</td>
<td>tasteless</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Temperature</td>
<td>oC</td>
<td>Air Temperature</td>
<td>+ 3°C</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>Color</td>
<td>Unit PtCo</td>
<td>50</td>
<td>200</td>
<td>52</td>
<td>52</td>
</tr>
</tbody>
</table>

B. CHEMISTRY

a. Inorganic Chemistry

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Unit</th>
<th>Requirement Water</th>
<th>Raw Water</th>
<th>Treatment</th>
<th>RO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mercury</td>
<td>mg/L Hg</td>
<td>0.001</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Arsen</td>
<td>mg/L As</td>
<td>0.05</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Iron</td>
<td>mg/L Fe</td>
<td>1</td>
<td>8.88</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>4</td>
<td>Fluoride</td>
<td>mg/L F</td>
<td>1.5</td>
<td>0.46</td>
<td>0.63</td>
<td>0.48</td>
</tr>
<tr>
<td>5</td>
<td>Cadmium</td>
<td>mg/L Cd</td>
<td>0.005</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Total Hardness</td>
<td>mg/L CaCO3</td>
<td>500</td>
<td>178.57</td>
<td>142.86</td>
<td>107.14</td>
</tr>
<tr>
<td>7</td>
<td>Chloride</td>
<td>mg/L Cl</td>
<td>600</td>
<td>48</td>
<td>960</td>
<td>80</td>
</tr>
<tr>
<td>8</td>
<td>Cromium VI</td>
<td>mg/L Cr</td>
<td>0.05</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Mangan</td>
<td>mg/L Mn</td>
<td>0.5</td>
<td>0</td>
<td>6.89</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Nitrate</td>
<td>mg/L NO3-N</td>
<td>10</td>
<td>2.47</td>
<td>23.45</td>
<td>2.65</td>
</tr>
<tr>
<td>11</td>
<td>Nitrite</td>
<td>mg/L NO2-N</td>
<td>1</td>
<td>0</td>
<td>0.07</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>pH</td>
<td>-</td>
<td>6.5 - 9.0</td>
<td>7</td>
<td>5.98</td>
<td>3.15</td>
</tr>
<tr>
<td>13</td>
<td>Selenium</td>
<td>mg/L Se</td>
<td>0.01</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>Zinc</td>
<td>mg/L Zn</td>
<td>15</td>
<td>0.12</td>
<td>0.09</td>
<td>0.05</td>
</tr>
<tr>
<td>15</td>
<td>Cyanide</td>
<td>mg/L CN</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>Sulfate</td>
<td>mg/L SO4</td>
<td>400</td>
<td>47.18</td>
<td>544.4</td>
<td>23.1</td>
</tr>
<tr>
<td>17</td>
<td>Lead</td>
<td>mg/L Pb</td>
<td>0.05</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

b. Organic Chemistry

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Unit</th>
<th>Requirement Water</th>
<th>Raw Water</th>
<th>Treatment</th>
<th>RO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organic</td>
<td>mg/L KMnO4</td>
<td>10</td>
<td>13.37</td>
<td>0.58</td>
<td>61.28</td>
</tr>
<tr>
<td>2</td>
<td>Detergent</td>
<td>mg/L LAS</td>
<td>0.5</td>
<td>0.38</td>
<td>0.12</td>
<td>0.09</td>
</tr>
</tbody>
</table>

c. Microbiology
The results of criteria parameters clean water analysis to river water samples based on parameters after treatment Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, synthetic resin (cation anion), and RO membrane findings obtained following findings:

Referring to Table 2, it appears that water sample turbidity level is very high (ie 154 NTU Scale), much larger than water quality standard (only 25). This makes raw water is not feasible as clean water.

Overview according to parameters that exceed value of raw water quality standards, it appears that; Turbidity, color, iron, Organic Matter and Total coliforms are all higher than threshold value permitted as clean water (Table 3).

**DISCUSSION**

Learning outcomes circuit assembly of river water processing equipment as well as Figure 1, followed by learning about the interpretation of laboratory test data on parameters clean water criteria to river water samples based on decrease parameters after treatment. In Table 3, it appears that Total coliform is very high (amounting to 1,700,000 MPN/100 ml). This condition indicates that river water is very risky in terms coli bacteria, resulting in the use of river water for consumption as clean water treatment must be done to decrease the content of e-coli.

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Unit</th>
<th>Clean Water Requirements *)</th>
<th>Raw Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Turbidity</td>
<td>Skala NTU</td>
<td>25</td>
<td>154</td>
</tr>
<tr>
<td>2</td>
<td>Color</td>
<td>Unit PtCo</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>3</td>
<td>Iron</td>
<td>mg/L Fe</td>
<td>1</td>
<td>8.88</td>
</tr>
<tr>
<td>4</td>
<td>Organic Substances</td>
<td>mg/L K MnO4</td>
<td>10</td>
<td>13.37</td>
</tr>
<tr>
<td>5</td>
<td>Total Coliform (MPN)</td>
<td>Number per 100 ml</td>
<td>Not water piping 50</td>
<td>1,700,000</td>
</tr>
</tbody>
</table>

Treatment Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, and synthetic resins (cation anion) in this study as many as 8 item can removal parameters that refer to clean water, are presented in Table 4.

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Units</th>
<th>Raw Water</th>
<th>Treatment</th>
<th>Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>Skala NTU</td>
<td>154</td>
<td>5.98</td>
<td>148.02</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Unit PtCo</td>
<td>200</td>
<td>52</td>
<td>148.00</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>mg/L Fe</td>
<td>8.88</td>
<td>0.14</td>
<td>8.74</td>
<td></td>
</tr>
<tr>
<td>Total Hardness</td>
<td>mg/L CaCO3</td>
<td>178.57</td>
<td>142.86</td>
<td>35.71</td>
<td></td>
</tr>
<tr>
<td>Zinc</td>
<td>mg/L Zn</td>
<td>0.12</td>
<td>0.09</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Organic Substances</td>
<td>mg/L K MnO4</td>
<td>13.37</td>
<td>0.58</td>
<td>12.79</td>
<td></td>
</tr>
<tr>
<td>Detergent</td>
<td>mg/L LAS</td>
<td>0.38</td>
<td>0.12</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Total Coliform (MPN)</td>
<td>Number per 100 ml</td>
<td>1,700,000</td>
<td>1700</td>
<td>1,698,300</td>
<td></td>
</tr>
</tbody>
</table>
Coagulant Aid treatment performance capabilities, Silica Sand, Ferrolite, Manganese Greensand, and Ion exchange resin in the form of anion and cation resin according to Table 4., capable to decrease physical parameters, chemical, Organic Matter and Total coliforms.

Organic substances above a threshold (13.37 mg/L KMnO4 higher than 10) indicates that sample of river water contains a lot of animal or human feces. Treatment in this study were able to decrease Organic Matter of 12.79 mg/L KMnO4 to qualify as clean water.

Table 2, Table 3 and Table 4, give an idea that has a lot of decrease parameters in reference parameter water performance results of treatments in this study. However, when compared with additional treatment of Reverse Osmosis (RO), a decrease in some parameters still lower in value. It is found in (Purwoto, S. et al., 2014) stated that Treatment: Poly Propylene Sediment, Carbon Block, Manganese Zeolite, Ion Exchange and Reverse Osmosis (RO) can meet the requirements as clean water is able to reduce some parameters (amount); Total Dissolved Solid (TDS) 2686 ppm, Total Hardness 371.43 mg/L CaCO3, Zinc 0:08 ppm, and Sulfate 24.56 ppm. But for the iron, the result of decreasing was higher in this study (at 8.74 mg/L Fe) compared with 12:18 mg/L Fe, as well as for Detergent 0:26 mg/L LAS greater than 0:10 in Purwoto, S. at al., (2014).

According Nurhayati, I, (2014), Capacity of Iron removal by using a combination of treatments Coagulant Aid, Filtration sediment polipropylena (SPP), and absorption of manganese greensand, followed by Ion Exchangers at 0:22 ppm, less than the removal results of this study (amounting to 8.74 mg/L Fe).

Findings Sugito, (2014), in the processing of water-based membrane permeable Ion Exchange combined with Electrodeionization (EDI) obtained values decline: Total Dissolved Solid (TDS) 752 ppm, hardness 457.24 mg/L CaCO3, Nitrite 0:49 mg/L NO2-N and Zinc 0:07 ppm. (Higher than the results of this study). In the case of removal Detergent, turbidity, color, iron, and sulfate in this research result is greater compared with Sugito, (2014), there are; Detergent 0:26 mg/L LAS (greater than 0:06 mg/L LAS), 148.02 turbidity NTU scale (greater than 4.94), the color 148.00 PtCo unit (greater than 40), and Iron 8.74 mg/L Fe (more greater than 0:55). Referring to comparison of findings of three journals above, about decreasing of iron substance in this research result is greater. This is possible because of Ferrolite treatment as treated in this study, and was not used in the third treatment referral.

Judging from the large decrease in the number of Coli bacteria (from 1.7 million until 1700), this is very representative because Coli bacteria do not support health. Iron compounds in small amounts in human body serves as the forming of red blood cells, which the body requires 7-35 mg/day which is partly derived from the water. But Fe substances that exceed dosage needed by body can cause health problems. This is because the human body can not secrete Fe, so for those who often get a blood transfusion the color of his skin turned black due to the accumulation of Fe. Drinking water containing iron tends to cause nausea if consumed. In addition, in large doses can damage intestinal wall. Death is often caused by damage to the intestinal wall. Fe content of more than 1 mg/l will cause irritation to eyes and skin. If the solubility of iron in water exceeds 10 mg/l will cause water smell like rotten eggs.

CONCLUSION
As the improvement of human resources can be done by learning about river water treatment to decrease some of parameters refer to clean water criteria using treatment Coagulant Aid, Silica Sand, Ferrolite, Manganese Greensand, synthetic resins (cation anion), and membrane RO obtained decrease clean water parameter consecutive is: Turbidity 150.85 NTU Scale, Color 148 Unit PtCo, Iron 8.71 mg/L Fe, Total Hardness 71.43 mg/L CaCO3, Zinc 0.07 mg/L Zn, Sulfate 24.08 mg/L SO4, Detergent 0.29 mg/L LAS, Total Coliforms 1,698,900 Number per 100 ml (MPN)

ACKNOWLEDGEMENTS
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Sugito, Sembodo, B.P., (2014). Water Treatment Based on Ion Exchange Membrane Permeable Combined with The Field Electrodeionization (EDI). Civil and Environmental Research ISSN 2224-5790 (Paper) ISSN 2225-0514 (Online) Vol,6, No,12, 2014, pp ; 10-15

Biodata

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IMMANUEL KANT'S MORAL CATEGORIZATION

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ABSTRACT
The focus of this article is reading the categorization of morality by Kant. Kant has classified about morality. It is found that the category of morality is crystalized into two moralities; (1) imperative morality and (2) hypothetic morality. Those two have difference and even a tendency of oppositional difference. The differences are not simply on the category of each definition, but it is also in how it is plunged into each practice. Therefore, it is important to look deeper the categorization of morality based on Kantian perspective. Moreover, the study of morality is durable issue to take out as a study, especially in literary realm.

Keywords: Morality, imperative, hypothetic

INTRODUCTION
Kant is one of the most influential moral philosophers, especially in enlightenment age. He does not only strip of the lack of romanticist emotional approach, but he even encounters it with analytical mode of rationalism. Therefore, it seems that he combines those two oppositional approaches in taking an ideal argument and it affects to what he thinks in moral philosophy. In Kant’s view (1996) as translated by W. Hastie in relation to the general divisions of the metaphysic of morals, the divisions of the metaphysic of morals as a system of duties generally are first, either duties of right, that is, juridical duties, or duties of virtue, that is, ethical duties. Juridical duties are such as may be promulgated by external legislation; ethical duties are those for which such legislation is not possible. The reason why the latter cannot be properly made the subject of external legislation is because they relate to an end or final purpose, which is itself, at the same time, embraced in these duties, and which it is a duty for the individual to have as such. No external legislation, however can cause anyone to adopt a particular intention, or to propose to him a certain purpose; for this depends upon an internal condition or act of the mind itself. However, external actions conducive to such a mental condition may be commanded, without its being implied that the individual will of necessity make them an end to himself. But why, then, it may be asked, is the science of morals, or moral philosophy, commonly entitled—especially by Cicero—the science of duty and not also the science of right, since duties and rights refer to each other. The reason is this, people know their own freedom—from which all moral laws and consequently all rights as well as all duties arise—only through the moral imperative, which is an immediate injunction of duty; whereas the conception of right as a ground of putting others under obligation has afterwards to be developed out of it. Second, the doctrine of duty, man may and ought to be represented in accordance with the nature of his faculty of freedom, which is entirely supra-sensible. He is, therefore, to be represented purely according to his humanity as a personality independent of physical determinations (homo noumenon), in distinction from the same person as a man modified with these determinations (homo phenomenon).

“Commonsense morality” is a key concept of moral philosophy. Each person in society gets exposed to a commonsense morality. This morality consists of a wide variety of standards of conduct, duties, obligations, values and principles that come from disparate sources, such as parents, teachers, peers, religious leaders, professionals, literature, music, the media, and so forth. Ethicists call these standards a “commonsense morality” because they are the norms that most people learn and practice without any explicit theorizing or deeper analysis. Some of these commonsense morals include principles like “do unto others as they would have them do unto them”, “keep their promises”, “be fair”, “always do your best”, and so on. Some of these
commonsense values include happiness, honesty, justice charity (or kind), courage, integrity, community, love, knowledge, and freedom.

German philosopher Immanuel Kant’s viewed that one should always treat rational beings as having intrinsic value or worth, not as mere instruments or objects having only extrinsic value. Kantianism also holds that moral standards should be universalize-able: moral principles are rules that would be followed by all rational beings with a good will. (A person with a good will is motivated by the desire to do her duty’s sake). For Kant, actions must be done for the right reasons in order to be worthy of moral praise. Kantianism implies that individuals should not be sacrificed for the common good, that people have moral duties that do not depend on the consequences of their actions, and that motives matter in assessing the morality of human conducts. Act only on that maxim through which they can at the same time will that it should become a universal law. People should behave in such a way that they can imagine everyone and-behave who steal, lie, etc. People should never treat people ‘simply as a means but always at the same time as an end’ (Treating individuals as an ‘end’ not just a ‘means’. All people are equal and deserve equal).

The disadvantage of Kantianism: It depends on freedom of will and rationality. Moral rules are absolute-that is they cannot be broken. The moral rules can seem quite abstract and unable to deal with the complexities of real-life ethical dilemmas. Two duties may conflict. The natural rights theory like Kantianism, this theory emphasizes that importance of individual rights and freedoms. According to this view, all people have natural rights to life, liberty, and property, and everyone is morally permitted to do anything they wish, provided that their actions do not violate the rights of other people.

Natural law theories hold that morality is founded on human nature: if an action has a basis in our natural instincts, emotions, or social relations, then it is right; if an action goes against our natural instincts, emotions, or social relations, then it is wrong. Natural law theories also maintain that we should strive to produce or achieve natural goods and eliminate or avoid natural evils. Natural goods include life, health, and happiness. On the other side, social contract theory proposes that morality consists of a set of rules that people agree are important to regulate society. In justifying moral rules, social contract theorists imagine people as existing in a state of nature prior to the formation of society. In order to live well, people must cooperate; and in order to cooperate, they need some rules for conduct. These rules are the rules of morality, politics, and the law.

The ethics of care is a theory inspired by feminist approaches to morality rejects traditional approaches to ethics on the grounds that they place too much emphasis on duties, rights, and justice. Such traditional theories are too abstract, legalistic, and uncaring, according to this view of feminist. The ethics of care holds that the main task in life is to love and care for ourselves and other people. People should cultivate loving and caring relationships in their conduct instead of relying on abstract concepts and principles. Some basic moral principles are Non-malignance as in “Do not harm other people”. Some are Beneficence as in “Help other people”. Some are Autonomy as in “Allow rational individuals to make free, informed choices”. Some are related to Justice as in “Treat people fairly; treat equals equally; un-equals unequally”. Some are related to Utility as in “Maximize the ratio of benefits to harm for all people”. Some are also related to Fidelity as in “Keep the promises and agreements”. Some contain Honesty as in “Do not lie, defraud, deceive, or mislead”. Some are about Privacy as in “Respect personal privacy and confidentiality”.

**Kant’s Moral Philosophy**

Those definitions finally have to be dragged back in Kant’s moral philosophy because Kant captivates it in ontological comprehension. Kant endures two categorical moral to categorical imperative and categorical hypothetic. Before discussing about these categories, this will be proper to lean it in how this category is applicable in action because actions are also categorized in the similar way. Kant separates two priority actions. They are action in accordance with duty; this action is acted on the basis of the corporation with other entities such as interests, pride, another purpose, and so forth, and the action from duty; actions carried out on
the basis of the act in itself, which means “a purposeless act”, “essentially a by-product of itself”, and action “in-itself”. An act done from duty derives its moral worth, not from the purpose which is to be attained by it, but from the maxim by which it is determined. Therefore the act does not depend on the realization of its objective, but merely on the principle of volition by which the act has taken place, without regard to any object of desire. It is clear from what precedes that the purposes which we may have in view for our acts, or their effects as regarded as ends and impulsions of the will, cannot give to actions any unconditional or moral worth (Friedrich, 1949: 147).

Thus, in simply, doing something morally should be envisaged in these two categories. An action which can be said as the pure action is an action from the duty; the duty for Kant is nearly related to the reasoning while the reasoning is not infected by desire, pride, and other purposes. On the other side, an action which is not pure action is an action in accordance with duty; it means that one will do something for something else. In moral sense, Kant seems to implicitly see this second part allegorically in pathological nuance.

Kant leads this problem on the structure of the act itself by exposing the linguistic level which implies that all things exist in the mind of human is always in Metaphysical Foundation of Morals; it is a kind of Kant’s attempts to discuss a wide range of imperative/command that makes the human to act in a contingent of understanding.

One of the most important differences here is the difference between a hypothetical category and imperative. The instance of hypothetical categories is like “If you want to get X, you have to do Y” and base on this the category hypothesis suggests that action is simply a means to get something and it is the goal. In otherwise, the imperative category works by imposing the requirements on an act, the only need which is owned is an action that is in itself (in-itself), without any purpose, and without the friction of the outer dimension.

Kant (1785) states that it is analogous to a sentence command/imperative; “You have to keep the promise!” This sentence does not mean that it is regardless of a contradictory because there is still a supplement that is concealed or implicit in it. So, it takes the premise of the next “… if not, you will be slayed!” With this supplement, the category imperative is to immediately turn into a category that is a hypothetical imperative or in disguise or false. All categories of imperatives seem potentially to become imperative that is hypothetical and it shows that what Kant sees the actual imperatives category which is potentially to be hypothetical categories. Therefore, the supplements can be the “poison” that undermines the premise of the first; as an act, which is initially purely, subsequently is undermined by a particular purpose which suddenly presents. This is analogous to the “I think” which is unnecessary spiked by “therefore I am” (in Cartesian tradition) because, in the process of “I think”, the act is actually running authentically, aiming, pure, and questioning, so that an action becomes imperative and a far for being a hypothesis.

To simplify this conception, one has to keep in mind that Kant sees an imperative can be both, hypothetical and categorical; “[…] if the action were good merely as a means to something else, then the imperative is hypothetical; if it is represented as good in itself, hence necessary, as the principle of the will, in a will that in itself accords with reason, then it is categorical” (Kant, 1785: 31). Therefore, the hypothetical exceeds something for something else and to act morally with this category, people may seem the impure action for doing something. This problem, for today, may be known as the symbolical action for grasping legitimation, acknowledgement, or something else. However, what Kant (1785:32) emphasizes here is that hypothetical should be seen also in a good sense because sometimes a one does something good for something else can be helpful to the others.

In the problem of categorical imperative, which is known as the pure morality, one does something for a pure goal. It is like a responsive call where nothing affects and persuades it, so that it is like an intuition for human beings to do with the will for responding to each.

[…] without being grounded on any other aim to be achieved through a certain course of conduct as its condition, commands this conduct immediately. This imperative is categorical. It has to do not with the matter of the action and what is to result from it, but with the form and the principle from which it results; and what is essentially good about it consists in the disposition, whatever the result may be. This imperative may be called that of morality. (Kant, 1785: 33).
Finally, it can be understood why Kant (1785:33) has to be so busy for making this categorization because he has to make an ideal position for morality as his thesis that morality, in its purest, is exactly a morality without being touched with other purposes. It is doing ethically in wholesome goal and aim, so that a one will receive untainted reason for doing this will. In other word, this can be assumed that Kant implies to say that the exclusive goal of how he writes about *Groundwork (can be understood as the fundamental base of ontological and epistemology)* is to pursue and launch the ultimate value of morality while it is the Categorical Imperative.

Looking at this perspective, Kant seems to unveil the impure moral action and it has to be underlined in a bold perspective because this may change one’s perspective to claim a moral value although it is not a pure morality. To simplify this part, it is so prominent to remark moral as in relation with action because moral is basically an ethical react or response rather than other symbolical understanding and defining value will be helpful to clean it up.

To conclude it all, the use of Kant’s perspective of morality is to screen out that the morality should be seen on the purpose rather than to see it in the context of how it is done. There are complicated categories to see but it is clinched in how it is done for something else and how it is done in itself and in its purest. From the point, morality can be embedded and applied to assume.

Additionally, it is very important to see how Kant (1785:31) calculates morality with that perspective, even with that paradigm. Kant, as German philosopher, should be seen as an idealist, therefore, what he sees about morality can also be understood in the division of the combination between rationality and institution. The diagram below might explain how Kant views morality.

![Diagram of Perceived Morality as Proposed by Descartes, Rousseau, and Kant](image_url)

Figure.1 The figure of Perceived Morality as Proposed by Descartes, Rousseau, and Kant

Descartes, also known as the father of modern philosophy, believes that truth can be traced from the inquiries of the doubt. The doubt stimulates the questions to think, while thinking indicates the position of the answer which is aimed. This is what Descartes sees as the process of cogito and *cogito* is uncompleted condition, therefore, alike to general condition of a question that needs answer, *cogito* should be completed with an answer which he says as *sum*.
**cogito ergo sum** (I think therefore I am). This is how rationality is centered than using emotion because emotion can trick and conceive human being.

On the other side, this is what Rousseau criticizes that rationality makes human trapped in a condition like a machine who always looks for stability (answer and question). This leads human to forget the essence of human, especially against emotion, feeling, conscience, and intuition. Here, Romanticism emerges as the credo of taking human back in its essence; using emotion and intuition as the trigger.

Rather than conflicting these two separated thoughts, Kant comes to solve it by combining it into a way to reach the highest truth as he puts it in moral category. He believes that there are two categories in morality; hypothetical (which means rational) and imperative (intuitional).

**CONCLUSION**

Based on those elaborations, Kant’s perspective seems to divide the moral categories to imperative and hypothetic. Imperative morality sources from the natural drive humanity. It is not in an aim or an artificial purpose. Anything comes as morality in practical way is actually an origin coming from inside of human’s conscience instead of personal purpose. Therefore, this sort of morality can be seen as the natural morality of human. On the other side, hypothetic morality can be seen as morality coming from a particular purpose performed by an individual in order to achieve the goal of doing the morality. It can be clarified as the opposite morality of the imperative morality. As human, anything practical morality is acted to some specific purposes, if it is an advantage, it can be executed, but if it is not, it can be forgotten to proceed. Therefore, it is related to causal-effect reason.

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**Biodata**

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ENVIRONMENTAL CADRES AS PATTERN OF SOCIETY-BASED LIVING ENVIRONMENTAL EDUCATION IN WASTE MANAGEMENT

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ABSTRACT
The application of the participatory concept allows communities to independently manage their household waste assisted by stakeholders as a facilitator and a companion in community waste management. A kind of the public participations to carry out independent management based on community empowerment is the creation of environmental cadres. The environmental cadres are intended to boost community participation in the management of household waste, especially in the role of housewives, youth and entrepreneurs that produce large amounts of garbage. The problem faced by the Community Research Partners is that the local inhabitants feel no need to manage waste well such as providing a container or realize their economic potentials because they can easily throw garbage into the river near their houses or on vacant land that are still widely available in the area of Kalanganyar Village. The outcome of the present community service research is the implementation of the five programs as cited in the activities carried out by the environmental cadres, that is the decrease in waste problem, the change of the public mindset with regard to waste management, the achievement of education for sustainable development, and the increase of their economy with the utilization of waste.

Keywords: environmental cadres, living environmental education, society-based

INTRODUCTION
Increased waste generation in the foreseeable future is predicted to be four to five times in 2020 (Johan Silas, 2002). The increased waste generation is not only due to population growth, but also due to increased waste generation per capita in accordance with increased economic growth and living standards.

Generally speaking, a great number of developing countries manage waste by employing the “end-of-pipe” approach, meaning that problems arise then are allowed to bother looking for solutions. It is a method used to remove already formed contaminants from a stream of air, water, waste, product or similar. It is called “end-of-pipe” as it is normally implemented as a last stage of a process before the stream is disposed of or delivered. Today the new paradigm of waste management is undertaken using the 5R-based cleaner production strategy.
(Rethink, Reuse, Reduction, Recovery, and Recycle) as an approach in an effort to minimize the garbage which began to be promoted in earnest.

The clean production approach is the effort to resolve in which the rubbish bins is as close as possible to the waste generation. Since the further waste is solved out of the trash produced by the more difficult forms of settlement to be found. With this waste minimization efforts then we no longer need to send garbage to a municipal solid waste landfill (MSWLF).

There is therefore so no need for the operational costs of transporting waste. In addition to the 5R-based cleaner production strategy then the trash is no longer a cost center but became a profit center.

The waste management program, however, has not been successful due to the possible alternative at the moment which is technical as the use of a wide range of latest technology and solving physical nature such as the construction of MSWLF, the addition of heavy equipment, and so forth.

The responsibility of the waste is divided to each society, community groups, from head of the region to the leaders of the country; all is charged with the responsibility in accordance with the capacity and function. The regional planning also plays a role in the completion of the waste because of the arrangement of space can bring about the difficulty of waste management. The government can provide grants in the form of equipment and machines for the recycling of inorganic waste on a small scale by not forgetting to facilitate the community that may be associated with larger industrial sector by creating a network that is easily accessed by anyone.

The Kalanganyar village is located in the District of Sedati, Sidoarjo Regency, East Java Province. The geographical situations of the Kalanganyar village an expanse of ponds and some ground land. Many streams cross the Kalanganyar village and it is used for field irrigation of the pond.

The various streams in the village Kalanganyar made people underestimate the problem of waste. The villagers felt no need to manage waste well such as providing a container or realize their economic potentials because they could easily throw garbage into the river near their houses or on vacant land that are still widely available in the area of Kalanganyar Village. As a result, the garbage was piled up in the river clogging streams and causing odor. Likewise, the garbage was dumped in vacant lots, eventually leading to the unpleasant smell and causing the flies as vectors of disease.

In addition, a river flows through the Kalanganyar village from Porong to the village of Tambak Cemandi. The river also carries garbage from other areas and then stops at the Kalanganyar village.

Due to these problems, at the request of the leaders and the villagers, there should be environmental education efforts in waste management in the form of community empowerment. The environmental education was implemented in the form of Community Service Program or activities carried out by the students of University PGRI Adi Buana Surabaya. The activities were carried out starting from the survey, socialization, followed by training and mentoring. The environmental education was intended to truly become an empowerment pattern in the form of waste management.

The community participation supports the waste management program of the region. The community participation in the field of waste management is a process whereby the consumers as well as producers and as the local inhabitants to be provided with solid waste services affect the quality and continuity of the infrastructure available to them. The community participation is important because of the role as well as a tool to obtain information about the conditions, needs and attitudes of the local community. People are more trusting project/program development if they feel involved in the process of preparation and planning (LP3B-Clean Up Bali Buleleng, 2003).

The application of the participatory concept allows communities to manage their household waste independently with assistance of stakeholders as a facilitator and a companion in the community waste management as a standalone. Thus, the policy is no longer entirely in the hands of the government (Widyatmoko and Sintorini Moerdjoko, 2002: 29).
This new paradigm that involves the community will be the environmental education for them. The public are made aware of the damage to the environment as their responsibility. Efforts to improve and preserve the environment cannot be left to the government.

Through the implementation of a new paradigm of waste management with the active participation of the community, it is expected to overcome the problem of waste, keep the environment clean and increase revenue. The adoption of a new paradigm of waste management through active participation of people directly would be able to maximize the condition of zero waste significantly.

The output target to be produced in this program is:
a. The formation of environmental cadres
b. The realization of the product of the activities of the environmental cadres
c. The establishment of “Bank of Trash”
d. The skills to manage businesses through the Entrepreneurship Training

The results of the Community Service Program:
a. Implementation of the five existing programs in the activities of the environmental cadres
b. Reduced waste problems
c. Change of the public mindset with regard to waste management
d. Reached education for sustainable development
e. The increased economic benefits with the use of waste

With this Environmental Cadre program and conversion of waste into valuable products the health of the economy will improve because of the maintenance of environmental cleanliness. These activities can contribute to the community, especially in improving people’s incomes.

IMPLEMENTATION METHOD

The planning, implementation and evaluation of the Participatory Community Service Program form includes:

a. The participatory activities of the pre-program target group is the participation in the search for input data for the preparation of Community Service Program (known as KKN PPM). In this case the community / target groups can be included in socialization program and provide the data (answers) that is used for the benefit of field analysis on the activities of the initial survey.

b. The participative aspect in the implementation of KKN PPM activities, community/target groups is on:
1. The socialization of application of waste management system with a new paradigm
2. Training the manufacture of products from wet waste
3. Training of the manufacture of dry waste
4. The application of the “sales system” in the forms of dry waste sorted by the local residents to the establishment of “Waste Bank”.
5. The participation of the target group to make a report and assist the implementation of the monitoring of the organizing team of the KKN PPM program

The KKN PPM program in the proposal implemented is theme-based. Therefore, among the organizers of the KKN PPM, namely University of PGRI Adi Buana Surabaya, Community of Kalanganyar Village community, and the students must work together in the implementation of the empowerment. The capacity/involvement in the empowerment of each is presented in the following table:

DISCUSSION

The solution proposed is in principle that the waste management must be done as close as possible to the source. So far the waste management has not run efficiently and effectively for the waste management are centralized. Society as one of the important factors in supporting the success of this waste management should really be involved in the waste management activities.
A form of the public participations is to manage independently. In order to support the community-based waste management it is necessary to the formation of cadres of the neighborhood. The project aims to increase community participation in the management of household waste, especially the role of housewives, youth and entrepreneurs that produce large amounts of garbage.

The environment cadres are expected to have a responsibility to urge people around them to maintain the quality of the environment around their homes, especially the problem of cleanliness and recycling. The environment cadres also have an obligation to provide the knowledge and skills of its waste treatment to the needy.

Waste Management is a community-based waste management system which is developed, operated, managed and owned by the community. The goal is self-reliance in maintaining the cleanliness of the environment through environmentally friendly waste management. The principles of the Community-Based Waste Management are: (1) Public Participation (2) Independence (3) Efficiency (4) Environmental Protection (5) Integration.

The measures to be taken in the realization are: (1) the approach to local community leaders and the permission of the leadership of the region (known as RW, Lurah), (2) the approach to people who have the will, awareness and ability to implement the program and can be a driving force in the environment, (3) mapping of the problem of waste and cleanliness of the local environment from various aspects, including the data collection on the number and composition of household waste, (4) a comparative study, (5) the formation of the neighborhood committees or working groups, preparation of work plans, and agreements on contributing the residents in the form of material and non-material, (6) training and campaigns to increase understanding and awareness of environmental greening and 5R (reduce, reuse, recycle or reduce, reuse, recycle), (7) mentoring, socialization, dissemination of information and continuous monitoring to produce compost, recycled products, greening and productive plants. The following is the comparison of the flow of waste management before the program and after the program.

![Diagram of waste management before and after the program](image)

Figure 1: The comparison of the flow of waste management before the program and after the program.

In an effort to support the community-based waste management it is necessary to establish the formation of cadres of the neighborhood. The project aimed to increase the community participation in the waste management, especially household waste. The environment cadres are expected to have the responsibility to invite the neighbors to maintain quality of the environment around their homes, especially the problem of cleanliness.
and recycling. The environment cadres also have an obligation to provide the knowledge and skills of the waste treatment to the needy.

The environmental cadres are grouped into five divisions:
1. Division of KERDUS: Recycling of waste
2. Division of KERPIS: Sorting trash
3. Division of KERTIMUK: Anopheles larvae (Mosquitoes)
4. Division of KERPOS: Waste management
5. Division of KERIJO: Greening of vacant land

Each division consists of:
1. A Chair who is called ‘Sergeant of Division’
2. Seven members

The definition and the principal tasks of each division are as follows:

1. Division of KERDUS: Recycling of waste

This division constitutes a group of cadres who are responsible for handling all problems regarding Waste Recycling in the region and to encourage local residents to jointly perform and make handicrafts of dry waste recycling.

2. Division of KERPIS: Sorting Trash

This division is a group of cadres who is in charge of handling all the problems of sorting waste in the region and to encourage local residents to jointly sort trash.

![Picture 1: The environmental cadres were sorting the dry household waste having economic benefits](image1)

3. Division of KERTIMUK: Anopheles larvae (Mosquitoes)

This division accounts for a group of cadres who are to handle all problems regarding Mosquito larvae in the region and to encourage local residents to jointly maintain and continuously check against all of the water tanks on each house as well as the front gutters.

4. Division of KERPOS: Waste management

This division constitutes a group of cadres who are on duty to handle all problems on waste processing in the region and to encourage local residents to jointly process waste especially wet garbage (organic) into compost.

![Picture 2: The wet (organic) waste was being processed with the communal composter or in the](image2)
Takakura basket for personal waste.

5. Division of KERIJO: Greening and utilizing vacant land

This division is a group of cadres who have duties and responsibilities in handling all problems regarding greening and utilization of vacant land in the region and to encourage local residents to jointly carry out greening and utilization of the vacant land.

CONCLUSION

To conclude, the planned program was completely implemented smoothly with no challenges disrupting the passage of the 2016 KKN-PPM program. It targeted the rural residents of Kalanganyar village, Sedati District, Sidoarjo Regency.

Most of the farmers were very enthusiastic in taking parts in the waste management activities which included in the five divisions of the environmental cadres, because they had already recognized the critical importance of the waste management efforts for the residents of Kalanganyar village. That is due to the fact other villagers throw away their trash into rivers and streams flowing through Kalanganyar village from the Porong river and it became a cessation of trash.

Several recommendations for future activities are as follows. In addition to the technological assistance for the waste management, a program of other activities is suggested to be carried out to do the waste management, for instance, recycling and composting. Furthermore, besides the main program, some additional programs should be also implemented.

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CONCEPT MAP IN LEARNING, ACHIEVEMENT MOTIVATION, PROBLEM SOLVING AND THE INDONESIAN LEARNING OUTCOMES

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ABSTRACT
A concept map as a tool in learning can improve students' ability to remember long term. The concept maps can be: (1) clarifying key ideas for teachers and students who are focusing on the subject, (2) providing a kind of road map that indicates the direction to associate the concept to become proposition means, and (3) as a schematic summary schematic of what who have just been learned. The aims of research in detail are: (1) To determine the effect of the teaching using learning model concept maps and solving the problem, (2) For more the results of language learning among the students with high motivation and low motivation, (3) To determine the interaction between the concept map learning model maps, problem solving and achievement motivation on the Indonesian learning outcomes. From the analysis of the data the F value for interaction methods and achievement motivation was 3.974 with the significance of 0.0048. If used significant value $\alpha = 5\%$ means it can be said there is interaction of the concept map teaching model concepts, problem solving and achievement motivation on learning outcomes of language acquisition of class IX. By using the techniques of two-way ANOVA it can be concluded as follows: (1) There were significant differences in Indonesian learning outcomes among the students who were taught using the concept map learning model concept maps and those taught problem-solving class IX of SMPN 1 and SMPN 2 Sidoarjo, (2) There were differences in the Indonesian learning outcomes Indonesian between the high motivation and low motivation of the students of SMPN 1 and SMPN 2 Sidoarjo, and (3) There was an interaction between the learning method map concepts, problem solving and achievement motivation on the acquisition of Indonesian learning outcomes Indonesian of students of class IX SMP 1 and SMPN 2 Sidoarjo.

Keywords: concept map learning, problem, achievement motivation.

INTRODUCTION
Improving the quality of Human Resources (HR) can be started by repairing and improving the quality of education. In this case the teacher is the key to success in the mission of education and learning. Therefore, teachers must be able to select appropriate learning media and can bring a conducive learning atmosphere, interactive, and can take students critical thinking, active, and responsible in learning.

Choosing methods and models appropriate learning is one capability that should be possessed by a teacher. For that teachers can use concept maps, problem solving and achievement motivation in teaching and learning in which students and teachers, pupils and students can interact to achieve maximum learning objectives and in accordance with the objectives of the curriculum is already in the set.

Anchored by the fact the field in learning Indonesian education is still very low. This is caused by two factors: 1) most students assume that the Indonesian subjects are basic subjects and can be learned without the presence of a teacher in front of class. 2) teachers still use
conventional teaching methods. This will give birth to an educated man with a static intellectually less creative. To avoid that students are encouraged to understand the concepts of educational material Indonesia language in a real and concrete by using a model concept maps so that students can obtain materials that are meaningful and easy to understand.

According Breg (in Irfa'i, 2002), Map of the concept is how to express a meaningful relationships between concepts in the form of propositions, as a concept map is one of the important media in education learning Indonesian. In order for the media map concept brings optimal results need to learn and know the symbols that exist on the map concept.

Operationally, this study will test a model of learning and problem solving concept mapping on learning outcomes Indonesian. Method refers to the delivery strategy, management strategy, which is based on a concept map learning and problem solving. One of the variables that most influence on learning outcomes in this study conditions will refer to the characteristics of students by involving achievement motivation.

Problem solving learning model is highly appropriate for learning that is experimental, research and the like. From the second model lesson that map concepts and problem solving is a learning technique used in the study, while the level of achievement motivation in this study is limited to the level of achievement motivation can be seen from the behavior of the students, it is an indicator used in this study.

The purpose of this study carried none other than to know the difference of learning outcomes between using model concept maps and taught by solving the problem, the second to learn more about the differences of learning outcomes between the high motivation and low motivation, and that is to understand the interaction between the learning model concept maps, problem solving and achievement motivation on learning outcomes Indonesian.

How to Create Concept Maps

According to Nur (in Trianto, 2007), that the concept map similar to a road map, but the map concept paying attention to the relationship between ideas is not the relationship between place. To create a concept map, students are trained to identify the key ideas associated with a topic and develop these ideas in a logical pattern. Arends (in Trianto, 2007), provides the steps to create a concept map as follows: (a) Step 1, identify the main idea or principle that encompass a number of concepts. For example ecosystems, (b) Step 2, identify or ideas or concepts that support the main ideas secondary. Example: individual, population, community, (c) Step 3 put the main ideas in the middle or at the top of the map, (d) Step 4 regrouped ideas of secondary around a main idea that visually depicts the relationship of these ideas with ideas main.

Benefits of Concept Maps

Based on the concept of map Benefits for students according Trianto (2007), the benefits of a concept map is to improve retention of learning a concept, and demonstrate to students that it has a form of thought. Map concept for students contribute to clarify the key concepts that should be prioritized for study.Whereas the benefits of Concept Maps for Teachers according Trianto (2007), Concept maps help teachers understand the various concepts embedded in the larger subject is taught. This understanding will improve planning and instruction of the teacher.

The theory of solving problems related to information processing. In the theory of problem solving there are three elements: (1) the representation of the problem, (2) the troubleshooting procedure, and (3) the pattern recognition problem, Sujimat (in Rumijan, 2002). In connection with troubleshooting Newell & Simon (in Rumijan, 2002), says that the troubleshooting procedure can use heuristic means that troubleshooting is done repeatedly by comparing the statements there.

Problem-solving strategies can be applied in teaching each subject. Leeuw (in Rumijan, 2002), argues that solving the problem is essentially learning to think (learning to think) or learn to reason (learning to reason). Learning activities with problem solving method can be done with the steps as follows: (1) to formulate the problem, (2) create a hypothesis, (3) to collect data, (4) test the hypothesis, (5) draw conclusions, and (6) Applications.
Based Sudjana (2011), that the troubleshooting procedures can be taken in the activities is as follows: (1) the teacher explains what should be achieved by the students in learning activities, (2) teachers to formulate the issues in question, (3) the teacher with students determine the alleged answer, (4) the students are asked to find alternative information or correct answer, and (5) the students discuss the information or alternative answers with the help of teachers in finding a conclusion.

Meanwhile, according to Hamdayama (2014), the advantages of learning model of problem solving is: (1) Fostering learning activities either individually or in groups, (2) The students gain practical experience both in the classroom and in the field, (3) learning activities more attractive because it does not bound in the classroom but outside the classroom so it is not boring, (4) Materials teaching more fully appreciated and understood by the students, (5) Materials teaching more fully appreciated and understood by the students, (6) social interaction among students more developed, (7) students learn to perform simultaneous analysis, (8) Allowing students to think logically and systematically in solving problems.

But based on shortcomings in Hamdayama (2014), lack of learning model of problem solving is: (1) Demand sources and means of learning enough includes time for student learning activities, (2) If learning is not controlled and is controlled by the teacher, learning activities students may bring a risk adverse, (3) If the problem does not weigh the effort the students perfunctory, so it tends to receive an answer or allegations while.

Achievement Motivation

In this case the motivation is a driving force that drives people to behave, and in the act has a specific purpose. According Atkison expand Mc.Cleland work (in Nur, 2001), achievement motivation noted that individuals can be motivated to excel in one of two ways: trying to manage or avoid failure. Mc.Donald (in Sardiman, 2001), that motivation is the energy change in a person characterized by the appearance of feeling and preceded with the response to their destination. According Sardiman (2001), that motivation influences their activity: (1) encourage people to do, become a mover and motors, (2) determine the direction of action, namely towards the goals to be achieved, and (3) selects what actions are to be done appropriate with the aim, by setting aside the deeds that are not useful. Winkel (2004) suggested that the motivation process as the emergence of a person's activity. According to Winkel (2004), that the study is an overall understanding of locomotion in students who pose a learning activity. Peterson (in Cahyono, 2005), stated that the motivation to learn is to drive, steer and maintain students' learning behavior.

According Cahyono (2005), Motivation to learn is the process generate, maintain and control the interest. According Dimyati&Mudjiono (2013), that the motivation to learn is very important because: (1) awareness in the learning process and results, (2) can obtain information about other business, (3) direct the learning activities, (4) add to the spirit of learning, and (5) awareness of the continuity of learning. The same thing according Dimyati&Mudjiono (2013), that kind of motivation it is two primary motivation and secondary motivation.

RESEARCH METHODS

The study is designed to provide accountability for all steps to be taken. The procedure adopted in this study is the measurement of the level of achievement motivation, at baseline, treatment (methods of map concepts and problem solving) and ends with the acquisition test learning outcomes. The measurement of achievement motivation is done at the initial meeting for each class. After that, given a post-test that is to know or to learn which treatment measure used as a variable. Population is the generalization region consisting of the object / subject that has certain qualities and characteristics defined by the researchers to learn and then drawn conclusions. The study population was a class IX student of SMPN 1 and SMPN 2 Sidoarjo.

The sample is a data collection procedures, where only part of the population are taken and used to determine the nature and the desired characteristics of a population. Samples were students of class A and B SMPN 1 Sidoarjo with the number 63 consists of 33 male students and 30 female students and students of class A and B SMPN 2 Sidoarjo by the number of...
The sampling technique used in this research is by simple random sampling.

Methods of data collection using questionnaires motivation, and achievement test: (1) Questionnaire achievement motivation (questionnaire). By way of answer the questionnaire was twofold: (a) Questionnaire open means the questionnaire presented in such a way that respondents in providing answers in accordance with his will. The questionnaire used if researchers cannot yet suspect the likely end of respondents. (b) Enclosed Questionnaire means a questionnaire presented in such a way that the respondent lives giving to mark the correct answer, questionnaire used in this study to obtain students' motivation. Research questionnaire developed by Likert scale with four answers, which is strongly agree (SS), agree (S), disagree (TS) and strongly disagree (STS). (2) Test results in the study variable measurement instrument used was a questionnaire form and shape of the test. This test is used to measure the acquisition of learning, while the questionnaire used to measure achievement motivation: (a) Instruments achievement motivation were measured using an instrument that was developed based on the indicators instruments achievement motivation, namely: to work hard, have a hope of success, have concerns will fail, and want to compete, and (2) validity Testing Instrument this research was conducted to study the acquisition instruments, and instruments achievement motivation.

RESEARCH RESULT

Learning concept maps

This study says that the score acquisition learn Indonesian with a concept map learning model has a range between 60 to 93, with the average score (mean) of 76.63, score the middle (median) of 75.00 and a highest frequency score (mode) at 80. While a standard deviation of 8.809. To get a visual picture can be seen in the image histogram frequency distribution of scores acquisition learn Indonesian learning model maps the following concepts:

Learning Troubleshooting

Scores acquisition learn Indonesian with problem solving learning model has a range between 55 to 90, with the average score (mean) of 71.03, score the middle (median) of 70.00 and a highest frequency score (mode) at 75. Whereas the standard deviation of 8.899. To get a visual picture can be seen in the image histogram frequency distribution of scores acquisition learn Indonesian learning model solving the following problems:

The first study conducted last Thursday, 7 April 2016 at 07.30 ?? 9:00 pm. The first study tested the hypothesis that there is an influence learning model is a map of concepts and
problem solving to the acquisition of learning Indonesian in class IX students of SMPN 1 and SMPN 2 Sidoarjo.

Researchers dare say that null hypothesis there is no significant difference learning model maps concepts and problem solving to the acquisition of learning Indonesian in class IX SMPN 1 and SMPN 2 Sidoarjo while the alternative hypothesis says there is a significant difference learning model maps concepts and problem solving to the acquisition of learning Indonesian students of class IX SMPN 1 and SMPN 2 Sidoarjo.

Table 3 Test of differences between subjects to test for differences in the independent variable on the dependent variable

<table>
<thead>
<tr>
<th>Source</th>
<th>Number Squares</th>
<th>Db</th>
<th>Average Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Corrected</td>
<td>2801.275*</td>
<td>3</td>
<td>933.758</td>
<td>14.534</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>617205.786</td>
<td>1</td>
<td>617205.786</td>
<td>9606.562</td>
<td>.000</td>
</tr>
<tr>
<td>MODEL</td>
<td>972.241</td>
<td>1</td>
<td>972.241</td>
<td>15.133</td>
<td>.000</td>
</tr>
<tr>
<td>MOTIVATION</td>
<td>1569.852</td>
<td>1</td>
<td>1569.852</td>
<td>24.434</td>
<td>.000</td>
</tr>
<tr>
<td>MODEL * MOTIVATION</td>
<td>255.326</td>
<td>1</td>
<td>255.326</td>
<td>3.974</td>
<td>.048</td>
</tr>
<tr>
<td>Error</td>
<td>7645.554</td>
<td>119</td>
<td>64.248</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>682220.000</td>
<td>123</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Corrected</td>
<td>10446.829</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The test results showed that the value of $F = 15.133$ with a significance level of 0.000. Significant level obtained from the test results is less than the significance criteria $Ho$ at the significant level of 0.05, which proves that the $Ho$-1-one is rejected and $Ha$ accepted.

**Data Description High Achievement Motivation**

Score high achievement motivation has a range between 55 up to 93, with the average score (mean) of 76.87, score the middle (median) of 75.00 and a highest frequency score (mode) of 75. While a standard deviation of 8.042. To get a visual picture can be seen in the image histogram frequency distribution of high achievement motivation scores following:

The second study was conducted on Monday, 25 April 2016 at 8:00 to 9:30 pm. The second study tested the hypothesis is there any significant influence of achievement motivation on learning acquisition of Indonesian students of class IX SMPN 1 and SMPN 2 Sidoarjo.

Researchers dare say that null hypothesis reads no significant difference high achievement motivation and low achievement motivation towards the acquisition of learning Indonesian, while Hypothesis alternative says there are significant differences of achievement motivation high and low achievement motivation towards the acquisition of learning Indonesian in class IX students of SMPN 1 and SMPN 2 Sidoarjo.

The results of calculations to test the $Ho$-2 are also presented in Table 4.
Table 4 Test of differences between subjects to test for differences in the independent variable on the dependent variable

<table>
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<tr>
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<td><strong>.000</strong></td>
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<td>1569.852</td>
<td>24.434</td>
<td>.000</td>
</tr>
<tr>
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<td>1</td>
<td>255.326</td>
<td>3.974</td>
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<td>10446.829</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculations show learning Indonesian acquisition by High an average of 76.87, while the acquisition learn Indonesian with low achievement motivation average of 69.11. Thus it can be said the acquisition learn Indonesian with high achievement motivation may indicate higher than the acquisition learn Indonesian with low achievement motivation and test results indicate that the value of $F = 24.434$ with significance level of 0.000. Significant level obtained from the test results is less than the significance criteria $H_0$ at the significant level of 0.05, which proves that $H_0$ is rejected and $H_a$ is received.

The third study tested the hypothesis is no interaction between the learning method map concepts, problem solving and achievement motivation on learning acquisition of Indonesian students of class IX SMPN 1 and SMPN 2 Sidoarjo. The calculations show learning gains Indonesian use concept map learning model with high achievement motivation average of 78.17, while the acquisition of Indonesian study using concept map learning model with low achievement motivation average of 73.77.

The calculations show learning gains Indonesian uses problem-solving learning model with high achievement motivation average of 75.34, while the acquisition of Indonesian learn to use problem solving learning model with low achievement motivation average of 65.00.

The test results showed that the value of $F = 3.974$ with significant level of 0.048. Significant level obtained from the test results is less than the significance criteria $H_0$ at the significant level of 0.05, which proves that the $H_0$-3-3 is rejected and $H_a$ accepted. The test results imply that, there is interaction between the learning method map concepts, problem solving and achievement motivation on learning acquisition of Indonesian students of class IX SMPN 1 and SMPN 2 Sidoarjo.

**DISCUSSION**

Analysis Hypothesis influence learning model concepts and problem-solving forum for learning outcomes Indonesian no significant effect, the students of class IX SMPN 1 and SMPN 2 Sidoarjo. From the analysis of the data contained $F$ value for the method was 15.133 with a significance value <0.05, this means that there are differences in learning outcomes by using concept maps, solving the problem with the conventional learning outcomes. The difference is caused by the method given. So the method affects the outcome of learning Indonesian at SMPN 1 and SMPN 2 Sidoarjo.

Discussion of Results Analysis Hypothesis influence of achievement motivation for learning outcomes Indonesian was no significant effect of achievement motivation on learning outcomes in the acquisition of SMPN 1 and SMPN 2 Sidoarjo. From the analysis of the data contained on the value of $F 0,000 = 24.434$ with significance if using a level of significance $\alpha = 5\%$, it can be said there are differences in learning outcomes Indonesian with high achievement motivation and learning outcomes with low achievement motivation. The difference is caused
by a motivation. So motivational effect on learning outcomes Indonesian at SMPN 1 and SMPN 2 Sidoarjo.

Discussion of Results Analysis Hypothesis interaction between the learning method map concepts, problem solving and achievement motivation on learning outcomes Indonesian there is interaction between the learning method map concepts, problem solving and achievement motivation on learning outcomes Indonesian acquisition at SMPN 1 and SMPN 2 Sidoarjo. From the analysis of the data contained F value for interaction methods and achievement motivation was 3.974 with the significance of 0.048. If used significant value $\alpha = 5\%$ means it can be said there is interaction map teaching model concepts, problem solving and motivation towards the acquisition of learning outcomes berprestasi Language classes IX. Of the exposures mentioned above shows the interaction between the learning method map concepts, problem solving and achievement motivation on language learning outcomes Indodesia class IX.

CONCLUSION

Results of research and discussion that has been presented in the future will be used as a guideline in conducting further activities, the results of data presentation and data analysis can be concluded to answer the questions in the hypothesis can be summarized as follows: (1) There is an effect of learning outcomes Indonesian who significant among which are taught using learning model concept maps and that taught problem-solving class IX students of SMPN 1 and SMPN 2 Sidoarjo, (2) There is an effect of learning outcomes Indonesian between the high motivation and low motivation in students IX SMPN 1 and SMPN 2 Sidoarjo, and (3) There is an interaction between the learning method map concepts, problem solving and achievement motivation on the acquisition results in students learning Indonesian IX SMPN 1 and SMPN 2 Sidoarjo.

REFERENCES


My name is Sunarni, I was born in Mojokerto on December 12, 1978. I have completed S-1 Indonesian and art UNIDA Malang and graduated in 2009. While the S-2 I UNIPA Surabaya TP majors graduated in 2016. Since 2014 I often attend seminars and training both domestically and abroad. Sometimes be a presenter or so participant only.
THE SOFTWARE DEVELOPMENT OF DEMONSTRATION METHOD
DEMONSTRATION BASED LEARNING FOR STUDENTS OF COOKING
CLASS KIDS AT MULTI CREATIVE HOME LEARNING IN SIDOARJO

Vendyah Trisnaningtyas
vendyah_trisnaningtyas@yahoo.com.

ABSTRACT

This study is aimed at producing the instructional planning & delivery toolkit such as syllabus, lesson plans and handouts for demonstration method-based learning materials for the students of Cooking Class Cooking for Kids. In addition, this study also was conducted to determine the feasibility of the quality of syllabus, lesson plans and handouts produced on the basis of the aspect of validity, practicality and effectiveness. The type of research was research and development. The products developed are in the form of syllabus, lesson plans and handouts on the material of Cooking Pancake Batter Berries Kids Cooking Class for students with learning using the demonstration method. The study was designed to follow the ADDIE developmental stages, namely the stages of analysis, design, develop, implementation and evaluation. The instruments used in this study were the assessment sheet, syllabus, lesson plans and handouts for expert lecturers and teachers of Cooking for aspects of validity, student assessment sheets and evaluation sheets, teachers’ handouts in terms of aspects of practicality, as well as an achievement test with 10 questions stuffing and 10 about the description to aspects of effectiveness. The results showed that the quality of the products produced by the aspect of validity syllabus met both criteria with a total average of 85, the lesson plans met the criteria very well with an average total votes of handout validator was 135.6 and met both criteria with an average score by validator ratings of 152.6. The aspects of practicality based on the assessment of students met the criteria for a good while practicality aspect based on the assessment of teachers met the criteria very well. Meanwhile, for the aspects of effectiveness based learning completeness percentage is 92%, so that the resulting product was effectively used.

Keywords: Demonstration Method, development of learning tools, cooking class kids

INTRODUCTION

Starting from the implementation of learning in the classroom to the subject of Arts and Skills (Seni Budaya dan Ketrampilan/SBK) has not been a priority in primary schools even though it contains material about the arts including art, sound art, dance, handicrafts and skills, and especially the material skill in which there cooking skills. This can happen even though some students who prefer to cook the field of “cooking” in accordance with the students’ interests and talents. If it is developed regularly, soon the students can have their future skills for the future. A set of devices that are used in the learning process called a learning device. Learning tools needed to manage teaching and learning can be a student books, modules, handouts, textbook, syllabus, lesson plan (Rencana Perangkat Pembelajaran/RPP), student activity sheet (Lembar Kerja Siswa/LKS), instrument evaluation or test results to learn, and learning media. In addition, for students Cooking Class Kids are able to follow the theory and practice held in the classroom learning tools needed to cook that fit the needs and abilities of the students.

Method Demonstration/show is one of the strategies of teaching where the teacher shows original objects, mock objects, or the process of the material that is taught to all students (Roestiyah, 2008). Demonstration method is a method of teaching that uses modeling to clarify a sense or to demonstrate how to do something to the students (Mariana: 2013). What is demonstrated is usually anything that attempted to achieve effective results. It also means that the method of demonstration is a way of presenting the lesson by demonstrating and showing a process, situation, or particular objects being studied both in its true form or in the form of
artificially displayed by the teacher or other learning resources in front of the whole student. With the method of demonstration, students can observe carefully what is happening, how the process is, what ingredients are needed, and how the results. Election Demonstrations motode learning device that will make the students Cooking Class Kids can learn properly and according to the needs at their age because in addition to the above opinion also of the previous research on: Development of Learning Design Catering by Direct Learning Method (Demonstration) to the students of Class XI Catering Service at SMKN 6 Surabaya and SMKN 8 Surabaya done by Nirma Utami Dwi. Obtained positive results was obtained that the product design for the development of learning by direct teaching methods to motivate students, improve the skills and creativity of students and to improve student achievement. Based on the above research, the research questions can be raised in this study. First, how to develop devices based learning method to learning cooking demonstration Kids Cooking Class for students with good qualifications in terms of feasibility, practicality and effectiveness. Second, how the student's skills developed after using the learning method of learning cooking demonstration on Kids Cooking Class for students in Sidoarjo. Third, how the students' response to the learning method based Kids Cooking Class demonstration in Sidoarjo. Fourth, how to change in attitude (character) Kids Cooking Class students during the learning-based method of demonstration took place in Sidoarjo. This research was conducted in order to determine the feasibility, practicality and effectiveness of devices based learning method developed for students Demonstration Cooking Class Kids in Sidoarjo. To find out the increase of learning outcomes of the students after using the device demonstration model study on learning to cook "cooking" Kids Cooking Class for students in Sidoarjo. To know that Cooking Class Kids in Sidoarjo can be a fun learning place and be the answer for students who want to distribute the interest and bakatnya. To know there is a change in attitude (character) of the students after learning to cook "cooking” Kids Cooking Class for students in Sidoarjo.

RESEARCH METHODOLOGY

The research was conducted in the form of research and development (Research and Development). Research carried out by developing a learning device based on the method of demonstration for students Cooking Class Kids adapting development model Analysis- Design-Development-Implementation-Evaluation (ADDIE). It was appeared in the 1990s developed by Reiser and Mollenda. This model was chosen because the model ADDIE often used to describe a systematic approach to instructional development. In addition, the ADDIE model of instructional model of a general nature and suitable for development research. When it is used in the development, the process is considered to be sequential but also interactive (Mollenda, 2003), in which the results of the evaluation of each stage can bring learning to the development of the previous stage. The final result of a stage is the initial product for the next stage.

Picture 1. The steps of development method of the ADDIE Model
The research method is presented sequentially in accordance with the flow of research Research and Development. The development of research was using the ADDIE development model. Syllabus, lesson plans and handouts developed have gone through stages of Analysis, Design, Development, Implementation, and Evaluation. The stages of development can be seen in detail as follows.

Analysis
Analysis phase aims at collecting information and identifying problems in learning Cooking as a basis for development of syllabus, lesson plans and handouts. a. Analysis. In developing the curriculum syllabus, lesson plans and handouts in advance is to analyze the curriculum in the material. The results of the analysis of curriculum materials Berries Pancake cooking especially for students of cooking there is no curriculum. b. Front End Analysis. This stage is done by observing the learning activities of cooking in Multi Creative Home Learning. Observations were made during that researchers carry out learning activities in July-September 2015. Of this stage is obtained that learning cooking is done has not gone well. c. Analysis of students (learner’s analysis) analysis was conducted to determine the characteristics of the regular students cooking class kids. The analysis was conducted for researchers carrying out learning activities. From the analysis we found that the students' regular kids cooking class have diverse capabilities (high, medium and low). d. The task analysis syllabus, lesson plans and handouts developed by Standard Competence (Standar Kompetensi/SK) and Basic Competence (Kompetensi Dasar/KD) compiled by researchers. The task analysis is to discuss the overall picture, especially Berries Pancake cooking materials that will be delivered to students. Standard of competence in particular Berries Pancake cooking material to be delivered is using the concept of cooking is simple with steps procedure easily understood by students. Meanwhile, the basic competencies that must be achieved by the students in learning the cooking material is to understand and know the definition and method of processing, decorating and presentation; understand the concept of material and use tools; make the process of weighing; make a dish in accordance with the rules and prescriptions; decorate and present creatively. e. Analysis of the concept. The analysis is based on the concept of material that has been detailed in task analysis. The material is already specified in the task analysis is then connected in accordance with KD that have been defined in the syllabus. f. Formulating learning goals (specifying instructional objectives). The stage is the formulation of learning objectives based on the basic competencies of the results of the task analysis and concept analysis. The purpose of learning is to be a reference in the manufacture of syllabus, lesson plans and handout materials Berries Pancake developed.

Planning (Design)
At this stage, the product adjustment Demonstration method for preparing prototype syllabus, lesson plans and handouts development. This stage is also carried out the preparation of framework syllabus, lesson plans and handouts as a whole. Activities undertaken by researchers in the planning stages, namely a. Collecting reference books and pictures relevant to the material set that will be used in preparing the syllabus, lesson plans and handouts. b. Drafting the syllabus, lesson plans and handouts based method of demonstration. 1) Drafting Syllabus. Syllabus based demonstration method refers to the standard process. The learning activities use demonstration method. The syllabus is designed in this study is the syllabus of Cooking Class Kids. 2) Design method based demonstration lesson plan refers to the standard process. The learning activities use demonstration method. 3) The draft Handout method demonstration. Handout is designed by the method of cooking demonstrations on the material that takes into account the feasibility of the content, presentation conformity with the approach to learning, didactic suitability requirements, compliance requirements of construction and technical suitability requirements which are a) develop a map needs handout. b) determine the title handout c) writing handout.

Assessment
Assessment instruments syllabus, lesson plans and handouts in the form of sheet RPP assessment syllabus and handouts should be developed. Validation of assessment instruments
should be carried by the validator. Valid assessment instrument that has been used to assess the syllabus, lesson plans and handouts have been developed.

a. The Result of Instrument Development of Lesson Planning Assessment
1) Instrument Rating Syllabus questionnaire structured and unstructured questionnaire. Structured questionnaire was using Likert scale with a scale of 5, 4, 3, 2 and 1, which consists of excellent, good, fair, less and very less. Meanwhile, a structured questionnaire was not used in order validator to provide advice regarding the products as the basis for the revision process. 2) Instrument Rating RPP structured questionnaire using Likert scale with a scale of 5, 4, 3, 2 and 1, which consists of excellent, good, fair, less and very less. Meanwhile, a structured questionnaire was not used in order validator to provide advice regarding the products as the basis for the revision process. 3) Instrument Rating Handout structured questionnaire using Likert scale with a scale of 5, 4, 3, 2 and 1, which consists of excellent, good, fair, less and very less. Meanwhile, a structured questionnaire was not used in order validator to provide advice regarding the products as the basis for the revision process. 4) Student Assessment Instrument structured questionnaire using Likert scale with a scale of 5, 4, 3, 2 and 1, which consists of strongly agree, agree, neutral, disagree and strongly disagree to a positive statement. Whereas the Likert scale with a scale of 5, 4, 3, 2, and 1, which consists of strongly disagree, disagree, neutral, agree, and strongly agree to negative statements. 5) Teacher Assessment Sheet structured questionnaire using Likert scale with a scale of 5, 4, 3, 2 and 1, which consists of strongly agree, agree, neutral, disagree and strongly disagree.

b. Results of Product Development
1) The syllabus in the study used 1 syllabus entirely refers to the standard process. In the syllabus developed SK, KD and indicators refers to the method of demonstration as the learning approach and attitude development. From the result of the analysis, it can be known that percentage of classical completeness of cooking class kids for regular students is 80.53% and skills. 2) The Lesson Plan/RPP in the study used RPP entirely refers to the standard process. In the RPP developed using the steps as a demonstration method of learning approach. 3) Handout developed draft contains several components, among others. a) Cover Handout b) Introduction c) Features Handout d) Table of Contents e) Section contents f) Bibliography.

c. Validation Expert
1) Validation of Instructional Design expert, appraisal experts i.e syllabus, lesson plans and handouts used assessment instrument syllabus, lesson plans and handouts in the form of a questionnaire to expert lecturers. Lecturer in Educational Technology expert is an expert in Instructional Design background which has doctoral degree. Validation syllabus, lesson plans and handouts by experts in the study conducted by two lecturers are experts 2) Validation Linguists assess the role of learning the language and the contents include: (1) compliance with the learning objectives; (2) display conformity; (3) content conformity; (4) delivery coherent. 3) Validation Matter Expert role is to assess the suitability of the content of the material described with learning objectives and assessing the existing concept of the learning device. 4) Validation Validation expert practitioners were conducted by practitioners implementing learning to cook "cooking" in the field. In this study have one teacher who qualified at least S-1 education Catering is Anitawati, S.Pd., Then the researchers also asked five teachers of grade 5 elementary schools in Sidoarjo to pass judgment on the current trial of the product in 5 of them are elementary school SDN Sidokare 4 (grade 1) by Eny Suhartini, S.Pd SD, SDN Teak Jati (grade 2) by Evi Lydia Gani, SDS Widya Wiyata (grade 3) by Samsul Hadi, S.Pd, SDN Sidoklumpuk (grade 4) by Lilik Windayani, M.Pd and SDN Fur Sidokare (grade 5) by Wahyuni, S.Pd. The instruments used by the teacher for validation RPP also use the same questionnaire consisting of RPP assessment includes aspects of identity, formulation of indicators/ learning objectives, the election materials, election approaches learning, learning activities, the selection of media / learning resources and assessment of learning outcomes. As
for the feasibility assessment Handout include aspects of content, conformance with the presentation of learning approaches, suitability model of learning, didactic suitability requirements, compliance requirements of construction (linguistic) and the suitability of the technical requirements. From the results obtained validation of product assessment and suggestions or enter as a reference to revise lesson plans and handouts developed.

Revision I
At this stage, revision was made to enhance syllabus, lesson plans and handouts in accordance with input and advice from the validator. Revisions were made to improve the content or appearance of products in accordance with the advice of the validator.

Test Development
The next stage in the development research is testing the syllabus, lesson plans and handouts with the method of demonstration on the Cooking material for Kids Cooking Class in Sidoarjo which has been developed through learning activities in the classroom directly. In this phase, the tests conducted by the researchers themselves with the assistance of a teacher and an observer implementation of learning. From the result of filling out the handout assessment by the participant students, the handout that has been developed can help the students comprehend the material of Cooking through the activities displayed in the handout. Based on teacher assessment data conversion quantitative to qualitative data on teacher assessment, the results of teacher assessment sheet have very good criteria. From these data, it can be concluded that the handout obtained excellent feedback from teachers. Teachers feel that the handouts are developed. In addition, student learning, seem more active so that learning is done more felt menyenangkan. From the result of the analysis, it can be known that percentage of classical completeness of cooking class kids for regular students is 80.53%. Based on these results achieve mastery learning criteria, so that it can be concluded that the syllabus, lesson plans and handouts can be used properly.

Revision
There are two stages of revision conducted by researchers namely: 1) revisions to enhance syllabus, lesson plans and handouts in accordance with input and advice from the validator. Revisions were made to improve the content or appearance of products in accordance with the advice of the validator, and 2) this is done after the researchers tested the product and data analysis. This is done to fix product errors found by the researcher during testing is conducted.

DISCUSSIONS AND RESULTS
The research results are presented sequentially in accordance with the flow of research Research and Development. The results of this study are presented in four parts in accordance with the formulation of research problems, namely: 1) the results of the analysis of the feasibility, practicality and effectiveness of the learning method used in the demonstration of learning to cook "cooking" Kids Cooking Class for students in Sidoarjo; 2) the results of the analysis of the student's skills after using the learning method of learning cooking demonstration on "cooking" Kids Cooking Class for students in Sidoarjo; 3) the results of the analysis of students' response to the learning method based Kids Cooking Class demonstration in Sidoarjo; 4) the results of the analysis of changes in attitudes (character) Kids Cooking Class students during the learning-based method of demonstration took place in Sidoarjo. Syllabus, lesson plans and handouts as products in development research was developed through several stages in accordance with the ADDIE development model, includes the step of Analysis, Design, Develop, Implementation and Evaluation.

Demonstration methods will lead students independently and actively through direct practice in accordance with the material when it is learned. At planning stage were collected reference to draft syllabus, lesson plans and handout material cooking, prepare draft syllabus, lesson plans and handouts, and develop assessment instruments products, reference materials and images to design products tailored to the cooking material. The draft syllabus, lesson plan
includes activities that have been adapted to the method of demonstration, namely: direct students practice the material presented, the students presented the results of work done, students and teachers to check and matching answers, and teachers provide reinforcement to the material being taught. At the end of the learning the exercises were done as assessment of student learning outcomes. While the design of the demonstration method handout contains some instructions for the students practice, decorate, do a presentation presented cuisine. Assessment instruments syllabus, lesson plans and handouts used to assess the products, validated by expert lecturers. Once validated, the product obtained a valid assessment instruments. Product assessment instruments include the assessment sheet syllabus, RPP by expert lecturers and teachers, assessment sheet Handout by expert lecturers and teachers, and student assessment sheets.

Furthermore, syllabus, lesson plans and handouts have been prepared were consulted to the supervisor for advice and input for improvement of syllabus, lesson plans and handouts. Syllabus, lesson plans and handouts consulted on the supervisor corrected based on advice given, and then validated by four expert lecturers and cooking teacher. From the results of the validation syllabus, lesson plans and handouts available as a reference revision suggestions for product improvement suggestions for revisions In addition to the device, the validator also provide product ratings syllabus, lesson plans and handouts. The assessment aims to assess the validity of the products. In this study, the feasibility of the product value based on the aspect of validity is determined by the minimum criteria that are in pretty good. Based on the results of the appraisal well validator of expert lecturers and teachers in mind that the average total Syllabus ratings are 85 and are in either category, total votes RPP is 135.6 and are in the very good category. Handout scoring average is 152.6 and in the very good category. Assessment syllabus, lesson plans and handouts can be seen in Figure 2 as follows.

**RESULTS**

Cooking learning implementation in five elementary schools in Sidoarjo can be seen in the table.

a. Fulfillness and usefulness learning devices based methods of cooking demonstrations for students in five elementary schools in Sidoarjo showed excellent results. The results of teacher assessment of the RPP get the criteria very well with the average value of 175.6 while the results of the teacher assessment criteria Handout got very good with an average value of 77.6. While the students' ratings of practicality handout criteria very well received by the average value of 2235.6.
b. The effectiveness and student response in the following criteria of Cooking study gets better with an average value of 84.04 which is obtained from the results of assessment tests in the worksheet.

c. Affective assessment carried out when the trial takes place in the classroom. The results obtained from each different school grade levels and ages because different students, so that the value obtained is different. SDN Bulu Sidokare and SDN Sidoklumpuk percentage of votes the same attitude 79% due to age in grades 5 and 4 not far adrift and students understanding of instructions or individual responsibility has started from, the student is cooperative and independent. As for the SDS Widya Wiyata, SDN Jati No. 22, SDN Sidokare 4 each scored attitudes 76% by the age difference is not too far adrift and grade levels between the 3, 2, 1. The character of different ages also be significant from the process of learning, for students who are in grade level 4-5 tend to be more focus and enthusiasm for reading and trying, while for grade level 1-3 tend to want to immediately try and impatient and seemed still hesitant and timid. With established groups in the practice of cooking activities more effective and enjoyable for students to communicate between friends in one group, caring, and can work together. For neatness and cleanliness of each grade level quite understand instruction when students are asked to carry out activities in accordance with the practice of steps according to the handout, so students no neglect to return the equipment and clean up back in their workplace.

d. Psychomotor assessment was also carried out when the trial takes place in the classroom. The results obtained from each school are different because of different levels of classes, so that the value obtained is different. For SDN Bulu Sidokare quite high compared to other schools, namely 86.31 scores obtained from the average value of practice and practice results. SDN Sidoklumpuk 82.69 it is because the students are old enough and can understand the instructions and responsibility of the individual has started to form, the student is cooperative and independent. For SDS Widya Wiyata with an average value of 80.16, SDN Jati with an average value of 84.14 and SDN Sidokare 4 with an average value of 70.63.

CONCLUSIONS

Based on the analysis and discussion that has been done, can be summarized as follows.


   a. Phase analysis includes analysis of the curriculum, the front end analysis, analysis of students, the task analysis, concept analysis, and the formulation of learning objectives.

   b. Stage design includes a reference collection, drafting lesson plans and handouts based methods demonstrations, and develop assessment instrument Handout syllabus and lesson plans.

   c. Phase develop assessment instruments include the development of learning tools, product development (syllabus, lesson plans and handouts), Validation Expert, Revision and development trials. Syllabus, lesson plans and handouts have been consulted on the supervisor then validated by four expert lecturers and cooking teacher and classroom teacher in five elementary schools in Sidoarjo. After validation, product assessment and the provision of advice/input later revised products based on advice from the validator.

   d. Once the implementation phase is through the process of validation and revision 1, researchers tested participants' products to students through learning activities Cooking Class Multi Creative Kids at home Learning Sidoarjo.

   e. After the evaluation phase is through the process of validation and revision 1 and 2, researchers tested the product on students through learning activities for students grades 1-5 elementary school in five elementary schools in Sidoarjo.

2. The syllabus, lesson plans and handouts based on the material Cooking demonstration method especially Berries Pancake Batter dough for participants can be viewed from the aspect of validity, practicality and effectiveness.

   a. Aspects of validity in terms of the assessment results syllabus, lesson plans and handouts by the validator. Syllabus development results that are in good criteria with an average assessment score, Syllabus is in good criteria with a score of 85 votes, RPP currently on the criteria very
well with an average assessment score of 135.6. While the result is Handouts development on both criteria with an average assessment score of 152.6.

b. Aspects of practicality in terms of student assessment results are used to handouts have good criteria with an average assessment score of 1262, while the practical aspects in terms of the results of teacher assessment of the handouts used in learning have a very good criteria to score an average of 85 votes.

c. Effectiveness aspects seen from Tests of Learning Outcomes in the form of tests and practices undertaken by students. THB Based on the results show that the percentage of students’ mastery learning classical cooking class kids by 92% with an average value of 80.53. Thus, learning completeness reached the criteria, so it can be concluded that the syllabus, lesson plans and handouts used in effective learning.

3. The response of students while participating in learning activities in both the Kids Cooking Class Multi Creative Home Learning as well as in 5 Elementary School are excited shown by documents collected by researchers in the form of photos and videos.

4. Changes in attitude / character of students appear as they undertake learning activities may do so under the instruction and is able to maintain the cleanliness of the classroom environment. Among the small-class students grades 1-3 still need guidance and motivation and advice to enable them to undertake activities according to the procedure given cooking requires concentration and prudence of each participant, while for large classes, namely classes 4-5 have appeared independently for their own begin to understand the instruction given by the teacher, so that each group can undertake more disciplined, in cooperation and communication each grade seems compact because they are very interested in cooking activities are carried out.

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Biodata

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ABSTRACT

Feedback is an essential part of effective learning. It helps students understand the subject being studied and gives them clear guidance on how to improve their learning (University of Reading, 2010). Feedback is also important for teachers because through feedbacks, the teacher will know the students’ needs in depth, such as what materials which being effective, interesting and gives challenge for the students. By doing feedback, students and teachers will meet the best qualities in learning and teaching activities happening in class. Feedback can improve a student's confidence, self-awareness and enthusiasm for learning. In Indonesia, the modern teaching will give students around 5 – 10 minutes to fill up the feedback forms. Feedbacks are given to judging or finding mistakes, but more directed to improve the qualities both for students and teachers rather than doing the formal assessment. Through feedbacks, students will get the benefit since the questions in feedback are in English. Along with students, teachers get the benefit through the feedback, for example he/she will be able to understand and measure his/her students English ability in high school level especially the writing skill as the feedback questions need long sentences to answer. This activity is essential because it can help students to write good sentences in English and give the students aware for their learning reflections. This article presents how essential to use corrective feedback to improve the students’ ability in responding the written questions.

Keywords: feedback, ability in responding, written questions, assessment

INTRODUCTION

The word “feedback” means information or statement of opinion about something such as a new product that can tell you if it is successful or liked. (Advanced Cambridge Dictionary). Another general meaning of “feedback” is overviewing through other’s opinion (Dwi Sunu Pebruanto, 2016).

Dwi Sunu Pebruanto stated that Feedback has two models:

1. Instrumental Feedback. This feedback happens for revision or correction. This feedback is useful to improve the quality of the clarity in writing task.
This paragraph is not optimal 4th grade work. However, the first and most important thing to point out is that the paragraph is clear and makes sense. That's true, and it's noteworthy. Probably the second main response to this as a piece of writing is that it is simple: it doesn't have much detail or variety in sentence structure. But if the student could think of how to add details, they would probably be included.

2. Validation Feedback. This feedback is useful for judgement of a product. This feedback commonly has these model of questions:

a. Is the product useful in long lasting period?
b. Will the audience be interested with the product?
c. Are the contents beneficial and useful?
d. How to achieve the learning goals?
e. How to achieve the learning target?
f. Do you think the used methods are beneficial?

Note: We can create various questions which are related to our needs for the feedback.

PRINCIPLES OF GIVING FEEDBACK

Basically, feedbacks happen based on these following principles:

1. IT IS DESCRIPTIVE, rather than judgmental. By describing one’s own reaction, it leaves the individual free to use it or not to use it as s/he sees fit. By avoiding judgmental language, it reduces the need for the individual to react defensively.

2. IT IS SPECIFIC, rather than general. To be told “you did a great job” is too general to be useful. Say, for example, “The way you organized the agenda really helped us to make decisions.”

3. IT IS APPROPRIATE, by taking into account the needs of both the receiver and giver of feedback. Feedback can be destructive when it serves only the needs of the one who gives the feedback and fails to consider the needs of the person on the receiving end. It needs to be tailored to the situation, to be considerate of the circumstances of the receiver, and to be given supportively.

4. IT IS USEABLE, rather than out of reach. Feedback needs to be directed toward behavior which the receiver can do something about. Frustration is only increased when a person is reminded of some short-coming over which s/he has no control.

5. IT IS WELL-TIMED. In general, feedback is most effective when it is given at the earliest opportunity after the action or behaviour has been observed. Timing also includes a sensitivity to the person’s readiness to hear it and to surrounding circumstances. For difficult feedback, ensuring that there is support available may be important.

6. IT IS CLEAR AND HONEST. Feedback is not helpful when it is given so carefully and cautiously that the point is lost. Giving it straight out is the best policy. That way, the receiver does not need to second-guess what is being said and why it is being said. One way of checking to ensure that the communication has been clear is to ask the receiver to rephrase it to see if the feedback received corresponds to what the sender had in mind.

7. IT IS REQUESTED, rather than imposed. Feedback is most useful when the receiver formulates a specific question or solicits a response. Of course, through the very act of placing oneself in a learning situation the receiver indicates that feedback is both essential and welcome.
8. IT REPRESENTS A COMMITMENT TO GROWTH. Feedback is best when it is offered 
out of a commitment to the person. The intention of feedback is to help the other learn and 
grow. This means that the giver of feedback needs to be prepared to relate on an ongoing basis 
and offer further comments to indicate improvement over time.

**Preparation for Giving Feedback**

Before giving feedback, especially when it is critical or difficult, it is crucial to do some 
reflection in preparation.

1) Determine the best time and place. 
   It is well-suggested to do the feedback in the post teaching activities. 
   It will be the best time to prepare around 15 – 20 minutes for students to fill up the feedback 
   form.

2) Identify the readiness of the person to receive feedback -was the feedback requested 
   explicitly or implicitly? -was the feedback not requested? As a teacher, it will be the best way 
to ask the feedback from our students. The main goal is for our reflection for our teaching in the 
future.

3) Prepare yourself to match the tone, style and language of the other person -develop strategies 
   so that the other person can hear and understand your feedback.

4) Identify how you will introduce the conversation “I want to give you feedback about ...” 
   “What I have noticed is...” “I would like to share my observations about last week’s 
   materials...”

5) Describe the behavior without judgement.

6) Practice -if necessary, write out what you will say face to face -rehearse by yourself or with a 
   trusted colleague.

**Sample Models of Feedback Form From Teachers To Students**

Date: ____________________
________________________

Name:

________________________

Instructions: Please indicate your level of agree with the statements listed below. Put a √ on the 
line.

<table>
<thead>
<tr>
<th>disagree</th>
<th>strongly</th>
<th>Strongly</th>
<th>agree</th>
<th>neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. Media and Materials

1. The objectives of the topic were _______ _______ _______ _______ _______ clearly defined.

2. The content was organized and easy _______ _______ _______ _______ _______ 
to follow.
3. The materials were useful.  

4. The use of teaching media are interesting and meet your expectations.  

5. The materials are very knowledgeable.  

6. The instructions in the given worksheets are clear.  

**B. Teacher**  

1. The teacher is well-mastered the materials.  

2. The teacher is well-prepared.  

3. The teacher used variety style in teaching.  

4. The teacher involved with the students interactively.  

5. The teacher did the opening and closing Activities  

6. The teacher clearly mentioned the instructions.  

7. The teacher used the clear tone.  

**How would you improve this teaching and learning activities? (Check all that apply.)**  

- Provide better information before the relevant topic.  
- Clarify the learning objectives.  
- Reduce the content covered in the materials.  
- Increase the content covered in the materials.  
- Update the content covered in the materials.  
- Improve the instructional methods.  
- Make learning activities more stimulating.  
- Make the materials in the worksheet less difficult.  
- Make the worksheet more difficult.  
- Provide more exercises related to the learning materials.
C. Reflection Questions

1. What did you like most about this topic? (Please write at least 2 sentences)

2. What aspects of the materials could be improved?

3. What additional materials that you think could be more interesting? (Please give 2 examples and write into a sentence)

4. What do you suggest for the teacher to present the materials in the future?

5. What do you think of the given worksheets? (Please write 2 sentences) Please write if you have any suggestions.

6. Did you meet any confusion when you do the worksheets? If your answer is “yes” please mention which part of the worksheet.

Thanks for your precious feedbacks

CONCLUSION AND SUGGESTION

Through this article, the writer would like to notify that giving the feedbacks regularly will improve and maintain the best quality in teaching and learning process. Both teachers and students will obtain the benefits through the feedbacks. For students, since the used language in the feedback worksheet is in English, they will get improved to master the foreign language (English), also train the students’ critical thinking who are especially in high school levels. Students will get improved to achieve better English ability (Reading and Writing), especially when they meet any written assessment.

This is also useful for the teacher because through observing the students’ answers in the feedback sheet, the teacher can evaluate and assess how accurate sentences made by the students rather than using the formal assessment too often.

Further, the teacher can directly have his/her self-reflections from the students. It will be great for the teacher to get the feedback from the students, as he/she can enhance the teaching qualities in the future, also understand the students’ language ability in depth.

I hope all teachers may have their time to create their own feedback to improve the quality of teaching and creating valuable materials. Getting feedbacks doesn’t mean to judge or decrease our pride and self-esteem, but to evaluate and increase ourselves much better as a high-quality teacher.

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Picture Source: University of Reading Website “Why is Feedback Essential?” (An article, archive 2010)
THE EFFECTIVENESS OF RME LEARNING MODEL TOWARDS PROBLEM SOLVING ABILITIES OF STUDENTS OF UNIVERSITY OF PGRI ADI BUANA SURABAYA FOR THE GEOMETRY MATERIALS

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ABSTRACT
The purpose of this research was to discover: (1) whether or not the average problem solving abilities of students who were taught using RME learning model achieve exhaustiveness learning; (2) whether the average problem solving abilities of students who were taught using RME learning model are better than the average problem solving ability of students who were taught using conventional learning model. The population in this research was students of Elementary School Teacher Education (known as PGSD) of University of PGRI Adi Buana Surabaya. By simple random sampling technique two classes were obtained as a research sample, namely class of 2015 C as the experimental class and class of 2015 A as the control class. The data was collected by the test methods. The results of the research showed that the experimental class and control class achieved exhaustiveness learning. Test similarity of the average problem solving abilities the data showed that the average problem solving abilities experiment group was better than the control group. From the above description it can be concluded that the application of RME learning model was effective towards problem solving ability of students of University of PGRI Adi Buana Surabaya in learning geometry.

Keywords: geometry, problem solving ability; realistic mathematics education (RME).

INTRODUCTION
Mathematics is one of the discipline can develop a way of thinking (Herman Hudojo, 2003: 40). Mathematics learned from primary school to university. One of the aims of learning math is develop the ability problem solving. Problem solving is part of the curriculum very important, because in learning and resolution students possible to obtain experience know and skills those they have to apply to solving problems that are not routinely (Suherman, 2003: 83).

Based on the results of a center for development research refresher courses math teacher express in some regions in indonesia different, the majority of student elementary and junior high schools difficulties in translating about our daily lives to mathematical model and finish the questions have been solving a problem. The majority of students diploma degree difficulty in resolving questions have bee solved a problem are the type. As many as 42,15% learning outcomes aspects of problem solving matter geometry student can’t achieve exhaustiveness learning. Based on researchers own observations as lecturers pengampu lecture the concept of basic math, seen that mahasiswamengalami difficulty in resolving are the type about solving a problem. The implementation of their experiences in the university diploma degree PGRI Adi Buana Surabaya still use traditional learning, of facilities and infrastructure has not been fully used with either. Student learning activities is not optimal, this can be observed with only 20 percent of a student who asked during the process of learning. The low study results aspects problem solving students more visible especially in to the matter that is abstract that calls for visualize, namely to the matter geometry.

Problem solving is a basic activity for humans. According to polya, the solution of a problem as the effort to look for a solution to an adversity, achieve a goal that is not in the immediate attainable. Polya submitted four step that could be pursued in order to solve a problem namely: (1) understand a problem; (2) planned problem solving; (3) implemented problem solving; (4) look back. The ability of the solution of a problem in this research is to be
able to students in resolving about tests the ability of the solution of a problem on any material geometry and results are at a value.

Problem solving ability in lecture the concept of basic mathematical is a component has an important role in building power mathematics students. Hence, to build the capacity above lecturers as the actor in the class must be created learning meaningful for students, one of them is find strategy or methods precisely so the ability problem solving and the motivation to study students can terekplorasi well. One of the models in learning that can be used is the model realistic mathematics education (RME). Learning with RME help lecturers link material to the real world students and prod a student made contact between knowledge it owned with daily life.

According to de lange (in Achmad Fauzan, 2002: 44-45), learning mathematics realistic carried out is using it the real world, models, the production and construction, interactive, and relatedness. This is in line with the opinions Herman Hudojo (2003: 147) that principles of learning realistic: (1) dominated by problems real; (2) of attention was given the development of models, situation, the scheme, and symbols; (3) active participation students; (4) interactive as characteristic of learning mathematics; (5) intertwining (making interlacing) between subjects of basic. Although the five principles main of the skeleton realistic is used to main development learning mathematics, but in design learning sometimes fifth that principle not all of them appear.

From the background above, appear problems the following (1) whether the average capability problem solving students who had use the model learning RME can achieve exhaustiveness learning? (2) whether the average problem solving abilities of students who were taught using RME learning model are better than average the average problem solving ability of students who were taught using conventional learning model? The purpose of this research is to find effectiveness of learning model rme of the ability of problem solving students PGSD PGRI Adi Buana Surabaya University to the matter geometry.

RESEARCH METHODS

The kind of research used in this research is research experiment. Design research this experiment use the form of true experimental design type posttest only control (Sugiono, 2008). Population in research this is a student pgsd university pgri adi buana surabaya the 2015, consisting of 120 students.

Variable to be measured in this research is problem solving ability. Technique the sample collection using a technique simple random sampling. Sample in this research was a class 2015C as a class experiment who had use the model learning rme and class 2015A as a class control who had use the model learning traditional. An instrument used for data collection is tests the ability of problem solving. Technique the data in this research in a test. Preliminary data obtained of the value of uts the first half odd lecture the concept of basic mathematical students the 2015. Analysis preliminary data covering test normality and homogeneity population, test in common the average (the two parties). Data analysis the end of covering test normality and the homogeneity class sample, test ketuntasan learning (test t and the the proportion of the left hand, and the similarity the average the right.

RESULT AND DISCUSSION

Based on analysis of the preliminary data, known that the normal and having variance homogeneous. Test results in common the average show that the two sample have the ability early same. Data analysis the end of done after obtained value students tests the ability of problem solving to the matter quadrilateral. The results of the analysis descriptive data the end of can be seen in table 1 the following.

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Average</th>
<th>Varians</th>
<th>Deviation Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eksperiment</td>
<td>40</td>
<td>100</td>
<td>64</td>
<td>84,13</td>
<td>87,55</td>
<td>9,36</td>
</tr>
</tbody>
</table>

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Based on the calculation on test normality data final grade sample obtained $\chi^2_{hitung} = 10.27$ dan $\chi^2_{table} = 11.1$ with the economic situation of real $\alpha = 5\%$, $dk = k - 3 = 10 - 3 = 7$. Because $\chi^2_{hitung} < \chi^2_{table}$; so H0 accepted, it means data final grade sample berdistribusi normal.

Based on the calculation on homogeneity test, obtained $F_{hitung} = 1.75$ and $F_{table} = 1.89$ with the economic situation of real $\alpha = 5\%$, $dk$ numerator $= n_1 - 1 = 40 - 1 = 39$, $dk$ the denominator $= n_2 - 1 = 40 - 1 = 39$. Because $F_{hitung} < F_{table}$ so H0 accepted, it means class sample have variance homogeneous.

Based on the calculation of the individual ketuntasan use test t one party (test the left indicate that data the last on class who had use the model learning RME and class who had use the model learning traditional reached exhaustiveness individual. The results of achieve individual class samples can be seen in table 2 the following.

Table 2. The results of the individual exhaustiveness class sample

<table>
<thead>
<tr>
<th>Kelas</th>
<th>N</th>
<th>Average</th>
<th>$\mu_0$</th>
<th>$t_{hitung}$</th>
<th>$t_{table}$</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eksperiment</td>
<td>40</td>
<td>84.13</td>
<td>76</td>
<td>5.49</td>
<td>-1.68</td>
<td>H0 accepted</td>
</tr>
<tr>
<td>Control</td>
<td>40</td>
<td>78.93</td>
<td>76</td>
<td>2.62</td>
<td>-1.68</td>
<td>H0 accepted</td>
</tr>
</tbody>
</table>

Based on the calculation of using test klasikal test the proportion of one party (test parties left) data shows that the last on sample class reached individual exhaustiveness. Testing shows clasikal exhaustiveness class samples can be seen in table 3 below.

Table 3. Test results ketuntasan klasikal class sample

<table>
<thead>
<tr>
<th>Class</th>
<th>$\sum$</th>
<th>N</th>
<th>Exhaustiveness Percentage ($\pi$)</th>
<th>$z_{hitung}$</th>
<th>$z_{table}$</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eksperiment</td>
<td>35</td>
<td>40</td>
<td>88%</td>
<td>1.90</td>
<td>-1.64</td>
<td>H0 accepted</td>
</tr>
<tr>
<td>Control</td>
<td>31</td>
<td>40</td>
<td>78%</td>
<td>0.44</td>
<td>-1.64</td>
<td>H0 accepted</td>
</tr>
</tbody>
</table>

Evaluation of the performance of lecturers should be conducted in every learning activities held where the class his experiments with learning model rme and on class control by traditional learning model. Assessment aims to understand how big the ability of researchers act as lecturer in managing class to follow. Assessment handed over to an observer that is a lecturer at the PGSD PGRI Adi Buana Surabaya university. The results of the analysis observation performance lecturers can be seen in table 4 below.

Table 4. The results of the analysis observation performance lecturers

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Eksperiment Class</th>
<th>Criteria</th>
<th>Control Class</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skor</td>
<td>%</td>
<td></td>
<td>Skor</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>33</td>
<td>68.7</td>
<td>36</td>
<td>63.3</td>
</tr>
<tr>
<td>2</td>
<td>36</td>
<td>75</td>
<td>42</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>39</td>
<td>81.25</td>
<td>46</td>
<td>76.6</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>83.3</td>
<td>48</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>42</td>
<td>87.5</td>
<td>51</td>
<td>85</td>
</tr>
<tr>
<td>6</td>
<td>45</td>
<td>93.7</td>
<td>53</td>
<td>88.3</td>
</tr>
<tr>
<td>Average</td>
<td>235</td>
<td>81.6</td>
<td>276</td>
<td>76.6</td>
</tr>
</tbody>
</table>
Assessment activity students conducted every learning activities held, where the class experiment who had with learning model rme and class control by traditional learning model. Assessment aims to understand how big activity students in following learning activities. The assessment results of the activity student learning activities in the class experimentation and class control can be seen in table 5 the following.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Eksperiment Class</th>
<th>Criteria</th>
<th>Control Class</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skor</td>
<td>%</td>
<td>Skor</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>65,3</td>
<td>Good</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>76,9</td>
<td>Good</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>82</td>
<td>Very Good</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>86,5</td>
<td>Very Good</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>47</td>
<td>90,3</td>
<td>Very Good</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>94,2</td>
<td>Very Good</td>
<td>44</td>
</tr>
<tr>
<td>Average</td>
<td>258</td>
<td>82,6</td>
<td>Very Good</td>
<td>232</td>
</tr>
</tbody>
</table>

Learning on class experiment apply learning model RME. The implementation of learning rme to research was carried out across four stage, namely understand a problem contextual, the problem of contextual, comparing and discuss the answer, and conclude. Students enthusiastic in following learning to the level of liveliness excellent. This is in accordance with theoretical learning Vygotsky and Piaget, as was quoted as saying by Trianto (2007), the social interaction students required in building experience and new knowledge into something meaningful. Learning RME able to make more students interested and not bored learn math.

The role of lecturer in learning RME is as facilitator, can afford to build learning interactive, lecturers actively interpret problems to the real world, lecturers have to connect math curriculum to the real world, both physically and social. Excellence learning model rme according to Fadjar Shadiq (2009) between other building knowledge own so the university students never forget, the atmosphere in learning exciting for use reality life, that students not rapid bored learn math, and students become valued and keeps open with the student learning take a value. In addition, rme also able to fertilize cooperation in the group, train courage because students should explain the answer, train students to get used reflect and their opinions, and educate the manners of a student.

Learning realistic mathematic education (RME) allowing it to students construction their knowledge itself through various of activity during learning activities. Ideas or thought delivered students as a result pengkonstruksian knowledge students monitored by lecturer and evaluated with a discussion which involved all students. This is in line with the opinions Anggit Prabowo (2015), mathematics taught as an activity in learning RME. The concept of which have been found students used to the problem of either individually or in groups.

Learning model rme applied in class experiment effective in the ability of problem solving. Based on the calculation of test in common an average of one party (test the right hand obtained) diperoleh $t_{hitung} = 2,805$ dan $t_{table} = 1,665$. Because $t_{hitung} > t_{table}$ so $h0$ rejected, it means the average capability problem solving mahasiswakelas experiment better than on class control. This is in line with the results of the study Endang Dhamayanti (2006) showing that the adoption of learning realistic can creative students in the problem of contextual based on the knowledge.
From the explanation of the above discussion, it can be inferred that the learning model RME very well applied to learning Basic math concepts particular to Adi Buana University PGRI PGSD Surabaya. Because if applied properly can make math learning become more effective problem-solving ability so that university students on the material of geometry for the better, as well as the learning activities of students also get better.

CONCLUSION
Based on the research done and discussion can be concluded that the average problem solving ability students who had use the model learning RME can achieve exhaustiveness learning and the average problem solving ability students who had use the model learning rme better than students who had use the model learning traditional.

REFERENCES

Biodata
Via Yustitia was born on January 16th, 1991 in Pemalang, Central Java. Education S-1 in Semarang State University, Teaching Faculty of Education Departement of mathematics and graduated in 2012. Postgraduate S-2 degree (M.Pd) Mathematics Education in Sebelas Maret University in 2015. She has been a faculty member of Primary School Teacher Education Departement, University of PGRI Adi Buana Surabaya since July 2015.
EFFECT OF RESPONSES FOR REFLECTION JOURNAL STRATEGIES ON STUDENTS OF CURRICULUM DEVELOPMENT COURSE

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ABSTRACT

Reflection journal is not just a description of the message at the end of the lesson, but should contain the important things, for instance, the evaluation of the usefulness of the search for weaknesses and strengths of a learning process, analysis of the causes of the weaknesses discovered and plan for further learning improvement. Learning strategies are ways to be selected and used by a teacher to deliver lessons. Reflection journal is a place to write a reflection of all learning activities undertaken, to improve subsequent learning activities. The response is a psychological term used to label a reaction to stimuli received by the senses. Things underlying support and the size of a response is the attitude, perception, and participation. This study was a quantitative descriptive research. The subjects in this study were the students of the Elementary School Teacher Education Department of University of PGRI Adi Buana Surabaya, of A, B, C, and D classes of 2014. The data collection technique used was questionnaire responses. The collected data were analyzed using quantitative-descriptive techniques. The results of the analysis were interpreted so as to produce a conclusion in accordance with the problems in this study. From the sample data presented in class A, the student questionnaire responses that stated ‘could not agree’ on the indicator 21, there were 19 students with a percentage of 45.3%. The statement ‘agreed’ on 19 indicators there were 38 students with a percentage of 90.5%. The statement ‘less agreed’ on 25 indicators there were 5 students with a percentage of 11%. No one disagrees of all existing indicators. It can be concluded that there was a student response to the reflection journal strategy used. From the results of research and discussion can be concluded that there was a response to the student journal reflections strategy for the future so that more faculty can prepare the lecture which could make the course more meaningful and enjoyable.

Keyword: Strategy, Journal Reflection, Response

INTRODUCTION

The learning process or learning is an activity to implement the curriculum in educational institutions so that students can achieve the goals that have been set. The purpose of education is basically leading the students toward behavioral changes both the intellectual, moral, social and cultural. Learning process itself emphasizes the interaction between learners, teachers, methods, curriculum, facilities, and environmental aspects related to achieving learning competencies. Competence will be achieved with the maximum when all components are met in accordance with their respective functions.

The problems that often arise in the course on curriculum development in primary schools are occurrence of failure, The students incomprehension in completing a given task. Academic problems as measured by the results of student lectures that include cognitive, affective, and students’ psychomotor. Students’ problems in understanding the course content of curriculum development in elementary school could hamper the achievement of competencies that must be filled by students.
Facts often pointed out, that the unfamiliarity of students in classes is not known by the lecturers, even the students themselves often do not realize what you have not or are not understood in following the lecture. If it is not pursued to seek alternative solutions, it is possible to lead to insignificant achievement of competence specified in a course.

Task of making reflection journal created by students at each end of the lecture is one possible alternative which is able to overcome this problem, making it possible to create a student’s response to the reflection journal strategy applied.

Reflection journal is a place to write a reflection of all learning activities undertaken, to improve subsequent learning activities. Reflection journal is not just a description of the message at the end of the lesson, but also things that is the evaluation of the usefulness by searching for weaknesses and strengths of a learning process, analysis of the causes of weaknesses found as well as future plans for further improvement of the learning process.

With so researchers could determine the extent of the student's response to the reflection journal strategy. Be it a positive response or a negative response so that lecturers can improve the learning process for better results.

**Learning strategies**

Dick and Carey (Aqib, 2013: 69) explains that learning strategies consist of all the components of learning materials and procedures or stages of learning activities or used by the teacher in order to help learners achieve specific learning goals. According to them, learning strategy is not just limited to the procedure or the stages of learning only, but also including the setting, material or package of learning programs that will be delivered to the learners.

Learning strategy is a series of activities in the learning process associated with the management of student, teacher management, management of learning activities, management of the learning environment, the management of learning resources and assessment for learning will get more effectively and efficiently in accordance with the learning objectives set (Suyono et al, 2011 : 21).

Noting some of the above opinion, it can be concluded that learning strategies are ways to be selected and used by a teacher to deliver lessons.

Learning strategy is essentially related to planning or policy designed to manage learning in order to achieve the desired learning objectives. Besides, learning strategy is closely related to learning techniques. Learning techniques is the implementation of a learning method which significantly takes place in the classroom, where learning takes place.

**Approaches, Strategies, Methods, Techniques And Learning Model**

In learning process is known some of the terms that have similar meanings, so often people feel confused to differentiate. These terms are: (1) Learning Approach, (2) Learning Strategy, (3) learning method, (4) Learning Technique, (5) Learning Tactics, (6) Learning Model.

Learning Approach can be defined as a point of departure or our view of the process that are still very common, in which facilitate, inspire, strengthen, and underlie learning methods with particular theoretical coverage (Komalasari, 2010: 54)

While the learning approach is a set of assumptions that are interconnected and linked to the nature of learning. An axiomatic approach and describe the properties and characteristics of the subject being taught (Suyono et al, 2011: 18).

When a person would do something, then he should set a goal to be achieved. To achieve the goals that one chooses the right approach in order to obtain optimal results, successful, effective and appropriate.

From the learning approach set out further lowered in learning strategies. Newman and Logan (Komalasari, 2010: 54) suggests four elements of any effort strategy, namely:

a. Identify and define the specification and qualification results (output) and the target (target) to be achieved, taking into account the aspirations and tastes of the people who need them.

b. Consider and choose the main approach road (basic way) most effectively to achieve the target.

c. Consider and define the steps (step) would be taken from the starting point to the target.
d. Consider and establish benchmarks (criteria) and benchmark size (standard) to measure and assess the level of success (achievement) effort.

   If we apply in the context of learning, the four elements are:
   a. Establish specifications and qualification of learning objectives that change behavior and personal profile of learners
   b. Consider and choose the learning approach system deemed the most effective.
   c. Consider and define the steps or procedures, methods and the learning technique.
   d. Establish norms and the minimum limit measures of success or success criteria and standards.

   Generally, method is interpreted as a way of doing things. In particular, learning method can be interpreted as a way of learning or a distinctive pattern in the use of various basic principles of education. In addition, the method is also a variety of techniques and other related resources to enable the learning process on self-learners.

   Thus, learning techniques can be defined as a way a person in implementing a specific method (Komalasari, 2010: 56)

   Learning technique is a way, device or media used by teachers to direct the activities of learners towards the objectives, Gerlach and Ely (Aqib, 2011: 70)

**Reflection journal**

Based on Ministerial Regulation of National Education No 16 of 2007 on the competence of teachers mentioned teachers always have to take a reflective action to improve the learning quality (pedagogic). In this case the teachers are required to reflect on the learning that has been implemented in the classroom, and utilize the results of these reflections to the improvement and development of learning in the subjects of teaching. If the reflection is done continuously, it can help improve the professionalism of teachers. Reflection done, of course, is related to the duties of a teacher, for example, do refection after completion of implementing the learning process in the classroom. Teachers reflect on teaching methods or models that have been used, it can also reflect the teaching materials delivered, may also reflect the students' responses. Reflection can also be done at the time of learning activities, at the end of lesson, or at the closing time. Students are required to provide comments and feedback (reflection) of the learning outcomes that had just been executed. The students' comments can be made orally or in writing. In order to become a reflective teacher and can develop these competencies, as mentioned above, it is recommended to every teacher provides learning reflection journal book. Through this reflection journal a teacher writes a learning process that has been carried out, write down strengths and weaknesses, evaluate the learning process, formulate corrective measures, and the planned implementation of improvements.

   Reflection is a way of thinking about what is newly learned or thought to the back of anything we have done in the past. Students put forward what he had learned as a new knowledge structure, which is an enrichment or revision of previous knowledge. Reflection is a response to events, activities, or new knowledge received (Trianto, 2008: 35).

   From the above opinion can be drawn outline terms of learning Reflection Journal is a living document and can continue to grow which is always written by the students to record student progress against what he has done every completed lesson. Learning reflection journal is not book an agenda book, which only records events and learning activities from time to time, but the students record the reflections and thoughts of teachers. What written in the reflection journal is usually focused on feedback / assessment of what a student has learned.

**Benefits of Reflection Journal**

   According to Hiemstra (2001) there are some benefits that can be obtained in writing a reflective journal. One of them is reflective journal as an investment in self-development through sensitivity to patterns of thought and feeling.

   If teachers consistently perform journal reflection on the students, the benefits to be gained from this activity are: First, the journal can be as a control tool implementation performance; second, as a self-assessment; Third, as the glass self; and fourth, as a companion document. There is an old saying which reveal that "you do not know until you write it." By telling yourself what you have learned, we can track the progress of learning that we have to
perform. We also began to notice the gap between the knowledge and skills available to us. The fact that record whatever we learn is an incentive to learn more.

By evaluating and analyzing the reflection journal of teaching, a teacher can obtain an overview of strengths and weaknesses in teaching. Strength is something that must be maintained and if it can be shared with colleagues so that the teacher can be an example of good practice for co-teachers in performing the task. Drawbacks are the things that need to be improved so that needs to be analyzed to find the root of the problem. Not only useful for teachers, a case analysis results can also be used by schools as a basis to develop programs to increase the competence of teachers and schools.

**Response**

The response comes from a word ‘response’, which means the reply or response (reaction). The response is a psychological term used to label a reaction to stimuli received by the senses. Things underlying support and the size of a response is the attitude, perception, and participation. Response to the process preceded a person's attitude because attitude is a tendency or willingness of a person to behave when faced with certain stimuli. So, talking about the response or no response in spite of the discussion attitude. The response is also interpreted as a behavior or attitude that is tangible well before detailed understanding, research, influence or denial, likes or dislikes as well as the utilization of a particular phenomenon (Sobur, 2003).

In general it can be said that there are three factors that influence a person's response, namely:

- **a.** The person who see and try to give the interpretation of what he see that, he was influenced by attitudes, motives, interests, and expectations.
- **b.** Target responses in the form of people, objects, or events. The properties target that usually influence to people response who see it. In other words, movement, sound, size, actions, and other features of target responses take part indetermining the way people view.
- **c.** Situation factor, the response could visits in contextual meaning in situation what responses that bul team get attention. Situation constitute factors that helped role in formation of response someone (Mulyani, 2007).

Thus the lecturers know the response of students to the reflection journal strategy used to analyze the interest and the interest of student learning in the learning process of curriculum development courses.

**METHOD**

**Types of research**

The type of research used is a descriptive quantitative research. Data from the quantitative research will be described in the form of words and to be presented in accordance with the data collected and analyzed inductively.

The technique of collecting data is a student questionnaire responses used as reference to identify measures that have been implemented in addressing the problems that arise in the lecture.

The data obtained will be processed and analyzed quantitative descriptive manner: Determine the percentage and describe the student questionnaire answers based on the response. By using the formula:

\[ P = \frac{n \times 100}{N} \]

Information :
- \( P \) = Percentage
- \( n \) = Frequency (many responses occurring)
- \( N \) = Number of overall response

Describing the results of the percentage
RESULTS AND DISCUSSION
In this study conducted in four classes in a single generation each class are given the same treatment and then given a questionnaire response at the end of the course to know the response of the students to strategies used reflection journal.

The following data were obtained:

Table 3.1
Table averages the questionnaire responses of students of class A, B, C, D

<table>
<thead>
<tr>
<th>NO</th>
<th>QUESTIONS</th>
<th>SS</th>
<th>S</th>
<th>KS</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I. Usefulness Strategy In Reflection Journal Recognizes Student Learning Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>With the reflection journal strategy, students can determine the learning problem faced</td>
<td>18</td>
<td>24</td>
<td>42.8%</td>
<td>57.2%</td>
</tr>
<tr>
<td>2.</td>
<td>With the reflection journal strategy, the students know the weaknesses of the understanding of matter</td>
<td>9</td>
<td>32</td>
<td>21.4%</td>
<td>76.2%</td>
</tr>
<tr>
<td>3.</td>
<td>With the reflection journal strategy, students can determine the causes of the emergence of the problem of learning difficulties</td>
<td>9</td>
<td>32</td>
<td>21.4%</td>
<td>76.2%</td>
</tr>
<tr>
<td>4.</td>
<td>With the reflection journal strategy, the students know the learning problems of various aspects (media, materials, situations)</td>
<td>8</td>
<td>34</td>
<td>19.1%</td>
<td>80.9%</td>
</tr>
<tr>
<td></td>
<td>II. Usefulness Strategy in Solving Problems Reflection Journal of Student Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>With the reflection journal strategy, students can determine the solution in correcting learning problems</td>
<td>8</td>
<td>33</td>
<td>19.1%</td>
<td>78.6%</td>
</tr>
<tr>
<td>6.</td>
<td>With the reflection journal strategy, students can overcome learning problems</td>
<td>6</td>
<td>26</td>
<td>14.3%</td>
<td>61.9%</td>
</tr>
<tr>
<td>7.</td>
<td>With the reflection journal strategy, students can anticipate problems learning</td>
<td>7</td>
<td>32</td>
<td>16.7%</td>
<td>76.2%</td>
</tr>
<tr>
<td></td>
<td>II. Fostering Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>With the reflection journal strategy, students motivated to learn because in every learning to know his weaknesses</td>
<td>6</td>
<td>35</td>
<td>14.3%</td>
<td>83.3%</td>
</tr>
<tr>
<td>9.</td>
<td>With the reflection journal strategy, students are motivated to learn because in every learning to know the strengths they understand</td>
<td>8</td>
<td>32</td>
<td>19.1%</td>
<td>76.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Usefulness Reflection Journal Strategies For Improved Feedback In Learning Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------------</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>0.</td>
<td>With the reflection journal strategy, students are eager to learn because learning becomes meaningful and fun</td>
<td>8</td>
<td>19.1%</td>
<td>30</td>
<td>71.5%</td>
</tr>
<tr>
<td>1.</td>
<td>With the reflection journal strategy, students are motivated to excel</td>
<td>6</td>
<td>14.3%</td>
<td>34</td>
<td>81%</td>
</tr>
<tr>
<td>2.</td>
<td>With the reflection journal strategy, students define vagueness lecturer in presenting the material</td>
<td>8</td>
<td>19.1%</td>
<td>30</td>
<td>71.5%</td>
</tr>
<tr>
<td>3.</td>
<td>With the reflection journal strategy, students determine discrepancies media in the learning process</td>
<td>7</td>
<td>16.7%</td>
<td>32</td>
<td>76.2%</td>
</tr>
<tr>
<td>4.</td>
<td>With the reflection journal strategy, students determine a discrepancy of teaching materials in the learning process</td>
<td>6</td>
<td>16.3%</td>
<td>32</td>
<td>76.2%</td>
</tr>
<tr>
<td>5.</td>
<td>With the reflection journal strategy, students determine discrepancies class situation in the learning process</td>
<td>9</td>
<td>21.5%</td>
<td>30</td>
<td>71.5%</td>
</tr>
<tr>
<td>6.</td>
<td>With the reflection journal strategy, students determine discrepancies learning methods in the learning process</td>
<td>6</td>
<td>16.3%</td>
<td>31</td>
<td>73.9%</td>
</tr>
<tr>
<td>7.</td>
<td>Usefulness Strategies to Improve Understanding Reflection Journal Content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>With the reflection journal strategy, professors change the learning methods that are less suitable</td>
<td>5</td>
<td>12%</td>
<td>34</td>
<td>81%</td>
</tr>
<tr>
<td>8.</td>
<td>With the reflection journal strategy, professors changing learning situations that were not appropriate</td>
<td>6</td>
<td>14.3%</td>
<td>36</td>
<td>85.8%</td>
</tr>
<tr>
<td>9.</td>
<td>With the reflection journal strategy, professors change the learning teaching materials that were not appropriate</td>
<td>3</td>
<td>7.2%</td>
<td>38</td>
<td>90.5%</td>
</tr>
<tr>
<td>10.</td>
<td>With the reflection journal strategy, professors assign learning media as required</td>
<td>4</td>
<td>9.6%</td>
<td>35</td>
<td>83.3%</td>
</tr>
</tbody>
</table>
Usefulness Reflection Journal Strategy in Solving Psychological Aspects Between Lecturers and Students

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>With the reflection journal strategy, allowing students to dare to argue and ask</td>
<td>19</td>
<td>45.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>52.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>4.8%</td>
</tr>
<tr>
<td></td>
<td>With the reflection journal strategy, quieter students comfortable in the following study because they were given the opportunity to reflect various shortcomings both students and lecturers</td>
<td>15</td>
<td>35.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>4.8%</td>
</tr>
<tr>
<td></td>
<td>With the reflection journal strategy, capable of creating closeness between students and lecturers so as to allow the creation of a more conducive learning</td>
<td>15</td>
<td>35.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27</td>
<td>64.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>With the reflection journal strategy, foster openness students and professors</td>
<td>16</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>With the strategy journal reflection, able to minimize all the problems caused by non-academic aspects (Psychological)</td>
<td>8</td>
<td>19.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
<td>76.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

In response to a questionnaire instrument there are 25 indicators that exist in five aspects, namely:
1. Usefulness of Reflection Journal Strategy in Recognizing Student Learning Problems
2. Usefulness of Reflection Journal Strategy in Solving Problems Reflection Journal of Student Learning
3. Fostering Learning Motivation
4. Usefulness of Reflection Journal Strategy in Solving Psychological Aspects Between Lecturers and Students
5. Usefulness of Reflection Journal Strategy to Improve Understanding Reflection Journal Content

Which then on the instrument classified in a statement strongly agree, agree, less agreed, and disagree.

From the results of the average student questionnaire responses above show of all aspects of the statement strongly agree there is ≤ 30%. In the agreed statement ≤ 50%. In a statement less agreed ≤ 10%. And the statement disagree = 0%.

In other words that the largest percentage of the overall aspects is the statement agree. It can be concluded that there is a student’s response to the reflection journal strategy stating ≤ 50% agree on all aspects.

REFERENCES
Wahyu Susiloningsih is a lecturer of Elementary Education Department, University of Adi Buana Surabaya. Wahyu was born in Surabaya on 25th of March 1989. Wahyu was graduated from Universitas Negeri Surabaya on 2011, Bachelor Degree in elementary education. Wahyu was also graduated her Master Degree in elementary education from Universitas Negeri Surabaya on 2014.