PENGARUH PENERAPAN KEGIATAN MANDIRI TIDAK TERSTRUKTUR (KMTT) TERHADAP HASIL BELAJAR MATEMATIKA
(Penelitian pada Kelas VII SMP Al-Islam 1 Surakarta Tahun Ajaran 2012/2013)

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Surakarta, 25 Oktober 2013

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(Idris Harta, MA.Ph.D)

Tanggal: 25-10-2013
THE INFLUENCE OF APPLICATION OF UNSTRUCTURED INDEPENDENT ACTIVITIES (UIA) AGAINST THE RESULTS OF LEARNING MATHEMATICS

(Research on Class VII at SMP Al-Islam 1 Surakarta Learning Year 2012/2013)

By
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Abstract
This research purposes: to knowing exist or not the influence of Unstructure of Independent Activities(UIA) against the result of learning about mathematics. A kind of this research ex post facto. The study is done at SMP Al-Islam 1 Surakarta with a population of class VII, as a sample of the class research are class VII G and VII I with uses the technique of sampling is purposive sampling. A method of collecting data are questionnaire and documentation methods. Technique analysis of data by using Khi Square. The validity of data taking by result of scores midterm exam in even semester in learning 2012 / 2013. From the results of research that undertake activities of UIA can be categorized into 3 groups, namely low (20,58%), medium (54,42%), and high (25%). While the results of the students study can be grouped into 3 groups, namely the group of students with low (14,71%), medium (64,71%) and high (20,58%). It can be conclusion (1) there is an influence on students study result by UIA as much as 55%, (2) the analysis also shown the difference in result between students who do low UIA and students who perform high UIA as much as 41%.

Key Words : Activity, Independent, Structured
INTRODUCTION

Education is important. Education can develop knowledge potential and skill to advance a country. Therefore, often education became a yardstick its upward course a country. How important education, a country sees it can be seen from the country itself.

Therefore, it is essential also enhances the quality of education. Many factors that affect the quality of education, including: teachers, infrastructure, students, as well as the learning process itself. Here the teacher demanded more in the management of the learning process. How does a teacher set up planning, process, and evaluation in the learning process will affect the success of a learning process, and it can be seen from the results of students’ learning through evaluation of learning.

However, the Government’s efforts in improving the quality of mathematics education has yet to reveal the maximum results. It can be seen from the results of the final value of the distribution of the number of students do not pass the national examination (UN) in 2011/2012 are still relatively high is 15.945% where the highest percentage of 8.34% in maths from 666 the number of the students did not pass, a total of 229 students not graduating on mathematical subjects.

TIMSS reports at international level (Third International mathematics science Study) that experienced a decline in 2011, the 2007 results showed Indonesia Gets the mathematical average of 397, whereas in 2001 the average grade 8 mathematics as a whole earned Indonesia only 386, whereas TIMSS using center point scale of 500 as a point of reference of the assessment into assessment. The mathematical average of the cognitive dimension of which include an understanding of 378 (31%), application of 384 (23%) and reasoning 388 (17%) (Ina et al., 1969: 462). These Data further stated that the quality of education math we are very low compared with other countries.

The low level of learning outcomes in mathematics review from five aspects contained in the regulation of the Minister of national education (Permendiknas) No. 22 of 2006: ’For all levels of primary and secondary
education it is stated that the purpose of math subjects in schools is that students are capable of: 1) understand the concept of mathematics, antarkonsept and description of how to apply the concepts or algorithms, for flexible, accurate, efficient, and precise in its problem-solving, 2) using reasoning patterns and properties mathematical manipulation, done in making generalizations, compile evidence, or explain the idea and mathematical statements, 3) to solve problems that include the ability to understand the problem, designing a mathematical model, complete models, and to interpret the obtained solution, 4) communicates ideas with symbols, tables, diagrams, or other media to clarify the situation or problem, 5) have an attitude to appreciate the usefulness of mathematics in life, i.e. have curiosity, attention, and interest in learning mathematics, as well as a tenacious attitude and self confidence issues in problem solving’.

There are factors that affect the process and learning outcomes are grouped into two parts, each of these factors, physiological and psychological factors. Physiological factors include learning material factors, environmental factors, and instrumental factors individual condition factors subject the students, while psychological factors are factors that affect the process and results of individual behavior such as learning, including learning behavior, is the totality of the studying and activity that was born as a result of the interplay of various symptoms (attention, observation, memory, thinking, and motifs) (Depdikbud, 2004 : 11).

One of the symptoms of the psychological factors that occur on this issue is motive. The motive is a circumstance in which the subject of the students encouraged him to undertake certain activities. The motive may be arising from outside stimuli, such as gift-giving when a person can finish a job well done. The motive of this kind are often called ekstrensik motif. But not infrequently the motif grows inside the subject's own sake and called intrinsic motives, such as intrinsic motives tangggungjawab, independence, curiosity. In the context of learning, the intrinsic motive of course is always better, and are usually long-term. In this case the independence plays an important role for the underlying, with the encouragement of the individual self or to do something, it will be a process of
meaningful learning is acquired naturally something meaningful will be remembered in the long term.

Contained in the regulation of the Minister of national education of the Republic of Indonesia (Permendiknas) No. 22 of 2006 that the burden of learning the assignment of structured and Unstructured Independent Activities (UIA) with the time that is specified for the structured assignment and UIA for learners on SMP/MTs/SMPLB a maximum of 50% of the amount of time the face-to-face activities of the subjects concerned. According to Danu Supriyanto (2013) are expressed on the importance of an independent study which is a psychic power that encourages students to be disciplined, active, spirit in the process of learning, low or absence of independence of learning held by students will weaken in the spirit of learning by doing so learning outcomes will be low or less. Therefore, the learning independence must be built and upgraded continuously. Independence is also a major factor in improving student learning outcomes, where the independence is an attitude of responsibility and confidence towards everything things are done. Self-reliance includes a willingness to learn and not just depend on other people, a child who has a self-contained properties will be used in making the learning process because it has a purpose that is ripe and know to get those goals students will be used to perform troubleshooting independently and lazy nature and only expect help others will never be achieved.

See the importance of independent activities for learning math, then the results in this study the authors are interested in conducting research on the influence of Unstructured Independent Activities (UIA) against the results of learning math class VII at SMP Al-Islam 1 Surakarta school year 2012/2013. Objectives to be achieved in this research is to determine the presence or absence of influence of the outcome of UIA learn math.

RESEARCH METHOD

The research was conducted at the SMP Al-Islam 1 of Surakarta in even semester school year 2012/2013 which is located at JL. Ponconoko No. 37, Tipes Serengan, Surakarta. This type of research is used by researchers that the ex post facto research is a process of discovering the cause of allowing a change of
behavior, symptoms or phenomena that are caused by an event, behavior or things that cause changes to the variable overall which is already happening without giving any specific treatment. According to (Furchan, 383: 2002) outlines that the ex post facto research is research conducted after the differences in the free variable occurs due to the development of an event in a natural way.

The method of data collection is the way that is done in order to obtain the required data. Retrieval method in this research is done by using several methods, details as follows: (1) a completed Method, is a technique or method of data collection indirectly (researchers not directly ask – and answer with respondents). The data collection instrument or tool is also called a questionnaire. The questionnaire contains a number of questions or statements that are to be answered or responded to by the respondent. On the research methods of questionnaires used to obtain data on the activities carried out by the independent students, (2) methods of documentation, data collection method is an in the form of things about variables, be it in the form of notes, books, student reports. The documentation used to obtain the data and the identity of the school as student name, student identification number, by looking at the documentation belonging to the school.

The overall population is individuals or subjects in the study. The population in this study are students from 9 class VII in even semester at SMP Al-Islam 1 Surakarta academic year 2012/2013, which amounts to an average of 30 people each class. The samples are a small group that is part of the population and is also the subject of research as well as the withdrawal of the conclusions of the research. The sample in this study are 3 Classes VII at SMP Al-Islam 1 Surakarta academic year 2012/2013, of which 1 was a test class class validity and reliability and 2 other class is a class of UIA research. Sampling is a process of selecting all of the population to determine the type of sample that can represent the population. In this study used a Non Probability Sampling with purposive sampling type that is how or techniques of sampling was taken with the intention or purpose. Someone or something taken as samples because researchers assume that someone or something has the necessary information for his research.
Statistical data analysis techniques were used to test the hypothesis in this study i.e. use quadratic khi stats. With the prerequisite test test the homogeneity analysis performed to determine the existence of a similarity or not between variasi-variansi from a number of the population used in the study. On penelitiaan, the homogeneity test is performed using the method of Bartlett

RESULTS AND DISCUSSION

The Data obtained from the test class's score value midterm. The Data presented in the experimental class scores table and the picture below:

<table>
<thead>
<tr>
<th>CLASS INTERVAL</th>
<th>f</th>
<th>X_i</th>
<th>fX_i</th>
<th>X^2_i</th>
<th>fX^2_i</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 43</td>
<td>3</td>
<td>42</td>
<td>126</td>
<td>1764</td>
<td>5292</td>
</tr>
<tr>
<td>44 - 47</td>
<td>6</td>
<td>46</td>
<td>276</td>
<td>2116</td>
<td>12696</td>
</tr>
<tr>
<td>48 - 51</td>
<td>1</td>
<td>50</td>
<td>50</td>
<td>2500</td>
<td>2500</td>
</tr>
<tr>
<td>52 - 55</td>
<td>12</td>
<td>54</td>
<td>648</td>
<td>2916</td>
<td>34992</td>
</tr>
<tr>
<td>56 - 59</td>
<td>8</td>
<td>58</td>
<td>464</td>
<td>3364</td>
<td>26912</td>
</tr>
<tr>
<td>60 - 63</td>
<td>12</td>
<td>62</td>
<td>744</td>
<td>3844</td>
<td>46128</td>
</tr>
<tr>
<td>64 - 67</td>
<td>20</td>
<td>66</td>
<td>1320</td>
<td>4356</td>
<td>87120</td>
</tr>
<tr>
<td>68 - 71</td>
<td>5</td>
<td>70</td>
<td>350</td>
<td>4900</td>
<td>24500</td>
</tr>
<tr>
<td>72 - 75</td>
<td>1</td>
<td>74</td>
<td>74</td>
<td>5476</td>
<td>5476</td>
</tr>
<tr>
<td>SUM</td>
<td>68</td>
<td></td>
<td>4052</td>
<td>31236</td>
<td>245616</td>
</tr>
</tbody>
</table>

AVERAGE 59.588
DEVIAITION STANDARD 7.884
From the research student who engages in the get UIA:

**Table 2**

**Data Grouping Categories of Unstructured Independent Activities (UIA)**

<table>
<thead>
<tr>
<th>Categories of Unstructured Independent Activities (UIA) (student)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>25</td>
</tr>
<tr>
<td>Medium</td>
<td>54,42</td>
</tr>
<tr>
<td>Low</td>
<td>20,58</td>
</tr>
</tbody>
</table>

Data of Unstructured Independent Activities (UIA) students are categorized in level of low, medium and high. The provisions of the categorization is if \( x > \bar{x} + SD \) the Unstructured Independent Activities (UIA) students were said to be high, if \( \bar{x} - SD < x < \bar{x} + SD \) the critical thinking ability of the students were said medium and if \( x < \bar{x} - SD \) so that Structured Independent activities (UIA) students were said to be low.
It can be concluded (1) students study result used in this study that is using two classes that show Unstructured Independent Activities (UIA) students have a significant influence on the results of the learning of mathematics. UIA influence against of learning outcomes is 55%, (2) the results of the analysis show that there is a difference between students who do Unstructured Independent Activities(UIA) high with students who do low UIA. Students with high results will have the UIA learn math better than students who do UIA is low. This is because students who perform high UIA will have an understanding of mathematics is high. While the students who do low UIA will be less able to understand math material, due to some psychological factors that affect students where students who have memeperhatikan activity, observing, remembering, thinking and motives (the urge to perform an activity) that can grow high awareness of the need for learning math with so this process can assist students in understanding the mathematical material. The analysis shows the difference of the results between students who do low UIA and students who perform high UIA amounting to 41%.

CONCLUSION

Based on the results of discussion and analysis that has been done in the previous chapter, the researchers took some conclusions as follows: (1) there is an influence on the students who perform UIA on student learning outcomes on the subject quadrangle. This can be based of the analysis of data obtained \( \chi^2_{\text{hitung}} = 30.467 < \chi^2_{\text{table}} = 5.991 \) with \( \alpha = 5\% \). UIA influence against 55% of learning outcomes, (2)There's a difference between who engages in Unstructured
Independent Activities (UIA) and are not doing on the UIA subject quadrangle. This is based on the analysis of data obtained value $\chi^2_{\text{hitung}} = 13.792 > \chi^2_{\text{tabel}} = 5.991$ dengan $\alpha = 5\%$. Based on the above analysis, the description indicates that the level is done by UIA different students can influence the outcome of learning math. With students who perform high UIA will have a high learning outcomes, students who perform UIA is going to have the study achievements were, and students who do low UIA will have a low learning outcomes anyway. This is because students who perform high UIA will have an understanding of mathematics is high. While the students who do low UIA will be less able to understand math material, due to some psychological factors that affect students where students who have attending activity, observing, remembering, thinking and motives (the urge to perform an activity) that can grow high awareness of the need for learning math with so this process can assist students in understanding the mathematical material. The analysis shows the difference of the results between students who do low UIA and students who perform high UIA amounting to 41%.

**BIBLIOGRAPHY**


