



**THE EFFECT OF ARTICULATION LEARNING MODEL BY
USING MNEMONIC METHOD FOR THE RESULTS OF
ENTOMOLOGY LEARNING OUTCOMES OF FIFTH GRADE
COLLEGE STUDENTS OF BIOLOGY EDUCATIONAL FACULTY
OF TEACHER TRAINING AND EDUCATIONAL MULAWARMAN
UNIVERSITY 2012/2013 LEARNING YEAR**

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Abstract

This study purpose to determine the using effect of articulation learning model by using Mnemonic method on learning outcomes of biological science students of fifth grade at Faculty of Teacher Training and Educational Mulawarman University 2012/2013 learning year. The benefits of this study is to provide information to lecturers so can apply learning on the sidelines of the use of conventional learning models, to create a different atmosphere that is more variant to eliminate college student's saturation . To providing information to readers and researchers next. The data was collected using the average pretest and post test mean average. Analysis of the data using the calculation Anacova test manually . From the data obtained the average values obtained using the class learning articulation model by using mnemonic is 71.1 , while the average value of a class that does not use a model of learning by using articulation Mnemonic is 64.4 . The results of the data analysis showed that the F value (6.6) is bigger than F table for level of 0.05 (4.08). This means there is the effect of using articulation learning model by using mnemonic to learn the results of Entomology Learning Outcomes of Fifth Grade College Students of Biology Education at Faculty of Teacher Training and Educational Mulawarman University on 2012/2013 Learning Year.

Key words: Articulation Learning Model, Mnemonic Methods, Learning Results, Entomology.

INTRODUCTION

One of the low quality of university education in Indonesia is due to the weakness of the faculty in exploring the potential of the college student. Most lecturers use direct instruction using lecture method with notes. This model is still going in one direction for learning activities centered on the lecturer. Lecturer explained the subject matter, while the college students listen and take notes. Lecturers often impose its will without ever attentive to the needs, interests and talents of students. The weakness of our lecturers, they never explore the problems and potential of the students.

Entomology has several goals to be achieved, which are increasing the understanding of theoretical concepts of Entomology. Understanding the concept of Entomology is the ability to mastering the basic idea of a theory of learning materials. In studying Entomology, understanding the concept of Entomology is very important, because entomology is the science of search theory based on insects life, where it concept related to biology as the sub unit of biology that biology education college student must know. So, by understanding of the initial concept, it will influence the subsequent understanding of the concept . Understanding concept of entomology is not easy. Therefore, we need an effective model learning to facilitate students in understanding the concept of entomology.



Cooperative learning is the type of learning that is done in groups. Students are expected to work together and help each other making it easier to understand the subject matter of Entomology. Cooperative learning emphasizes the presence of peers who interact with each other. Articulation learning model included in cooperative learning. Articulation learning model is one of the some models of cooperative learning. In articulation learning model, material that has been given by Master, shall be continued and explained to the other students (family group). This is where the uniqueness of this learning model. Students are required to be able to act as a "receiver of the message" at the same time act as a "messenger" . Articulation learning model is a model of learning that requires students actively in learning where students are formed into small groups, each student in the group has the task of interviewing friends group discussed about the new material. The distinctive feature of this study is assumed to be the recipient and student conveys information.

Mnemonic method is intended way students in memorizing the material quickly, easily, and can remember in a long period of time. This method can be done if students as informants over material that has been described by the lecturer and the student note the main points of the material, then create a concept that can be remembered through words, sentences or even unique things that the concept can be attached to the student in long periods of time. Articulation with the implementation of the model using the method of mnemonic learning on Entomology Course, students are expected to use and develop the knowledge to achieve better learning outcomes.

Theoretical Background

Education is one of the main factors to achieve a quality community. Therefore, the Indonesian government has always tried to improve the quality of education in accordance with one of the Preamble of the 1945 Constitution which reads on Alenia fourth that explain rising the intellectual life of the nation, although the outcome has not met expectations. According to Law No. 20 on 2003, 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 to have the spiritual strength of religious, self-control, personality, intelligence, noble character, and skill , society, nation and state. One reflection of the quality of education in college is learning outcomes achieved by students at the college. Thus the learning outcomes of students in a particular subject is one indicator of the quality of education in the universities.

In the 21st century, students must be completely involved in the learning process, this requires the use of technological tools and resources, involvement with the interesting project and relevant, as well as environments learning including online environment that supports and secure. In the 21st century, educators must be given and ready to use technology tools, they must collaborate in continuous learning and seeking knowledge and acquiring new skills with students .

According Slameto (2002), Lessons will be more attractive and successful, if it is connected with the experiences in which students can see, feel, say, do, try, think, and so on . The lesson is not only intellectual, but also emotional. The joy of learning can enhance learning outcomes.

One effort to improve the quality of education is a way to improve the learning process. Learning is basically the interaction or reciprocal relationship between teacher and student in the educational situation. Therefore, educators are required to teach patience, perseverance and an open attitude in addition to proficiency in teaching and learning situations are more active.

Articulation learning model is a model of the process as a chain message, it means what it has given by lecturer, a student must continue to explain it to other students (family group) . This is where

the uniqueness of this learning model. students are required to be able to act as a “receiver of the message” at the same time act as a “ messenger”. Articulation learning model requires active student learning where students are formed into small groups, each student in the group has the task of interviewing friends group the new material is discussed. The concept of understanding is needed in this learning model (Ginta, 2012).

A lecturer in presenting the material needs to choose which method is appropriate to the circumstances or classes of students so that students feel compelled to follow the lessons. The one of appropriate method is the Mnemonicmethod. Mnemonic method is a method that has been known since ancient Roman times. This method requires the creativity of the student's own mindset. Where in the character of the individual student has a different cognitive . This is not a problem, because the Mnemonic learning process is a process or method that connects the brain's ability to process information that is taught by lecturers with words, ideas, or delusion held by each student and repeat these words to be easily remembered (recall) to tens of years. So most likely the idea that each student is different between each other. Mnemonic method is a method of learning that adopts the principle of fun so the effect of things- fun things that will have an impact on students interest in learning and the process of remembering longer than the lecture method. The elements in the mnemonic to show that the mind (ideas) are interconnected with a second thought and so on. One thought bound by the following thoughts as a chain. If we remember one thought, then another thought will follow automatically. Linkages are arranged to resemble a story it even easier for students to remember the entire word, because its original words. (Abdul, 2011).

Method

This research is a quassy-experiment research. Quassy-experimental research is a type of research that uses the entire subject in a group study for treatment, instead of using subjects drawn at random. According Sugiyono (2011), Quassy-experimental study method, the research methods used to find the effect of a particular treatment against the other under controlled conditions.

This study was conducted over three months, from the date of December 2, 2012 until February 13, 2012 which is housed in the Faculty of Teacher Training and Education Mulawarman Samarinda.

The study was designed using quassy-experiment pretest-posttest models are not equivalent (the non-equivalent pretest-posttest design). This type of design is usually used in experiments that use classes that already exist as a group, by selecting classes that are expected at the state/condition.

Tabell1.Nonequivalentexperimental design

Group	<i>Pre-test</i>	Treatment (independent variable)	<i>Post-test</i> (dependent variable)
Regular Morning A Class	O ₁	X	O ₂
Regular Morning B Class	O ₃	-	O ₄

Source: Sugiyono (2011)

Information:

1. Regular Morning A Class and Regular Morning B were given pre-test.
2. Regular Morning A Class was given treatment of articulation learning model by using mnemonic method.
3. Regular Morning B Class was given treatment of direct instruction method.
4. Regular Morning A Class and Regular Morning B were given pre-test to know learning outcomes on the subject of entomology.

The data collection techniques used in the study was a test. The tests are intended to provide formative tests to each class research sample with the same shape, then compare both the formative test results to be analyzed. In addition, this study also uses documentation and test techniques to increase the accuracy of the data needed writers. Initial tests (pre-test) in the form of 10 questions Essay, final test (post-test) in the form of 10 questions Essay and then compared the test results to be analyzed.

In this research using the analysis of co-variance test (Anacova), with variable (X) as a co-variant is the average value of the pre-test students previous material and variable (Y) that student learning outcomes in the form of average values post-test using the mnemonic and articulation learning model. If the variance both homogeneous and normal samples, used Anacova test. For the data analysis required number of squares and the number of cross product (cross product) and by using tables and lists Anacova calculation for a single factor with a covariate (Sudjana, 2002).

RESULT AND DISCUSSION

Learning outcomes of Regular Morning A Class and Regular Morning B Class on entomology course presented in table 2.

Table 2. Pre-Test and Post-Test Average Value of Regular Morning A Class and Regular Morning B Class on Entomology Course.

Class	Regular Morning A (treatment)		Regular Morning B (control)	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Total	1165	1493.3	1153.3	1353.3
Average	55.5	71.1	54.9	64.4

(source: research result, 2012).

The table shows the post-test students who use the learning model articulation using the mnemonic method scored an average 71.1. While students were not given the articulation of learning models by using Mnemonic (Direct Instruction) obtain an average value of 64.4 to note that these values are taken 100% of the final test results (post-test). To analyze the differences of the two samples then tested Anacova. Anacova test is a test that contains a factor covariates, where college students on the posttest results of this study are influenced by the students understanding of the

materials science of Biology previous chapters, so researchers here using the pre-test score as a covariate factor (X) and a posttest values (Y).

Tabel 3. Result of Anacova Data Analysis.

Source of Variation	dk	JK and Cross Product			Corrected by Regression			F _{value}	F _{table} 5%
		X	XY	Y	Y	dk	KT		
Treatment	1							4,08	
Error	40					39	35,16		
Total of JK	41					40			
Corrected treatment					241,8	1	241,8	6,6	

(source: research result, 2012)

According to the table, a score of 6.6 F value larger than the F table at 5 % significance level with 40 db = 4.08, then the hypothesis Ha this study received, which means there is the influence of the articulation learning model by using mnemonic of the learning outcomes college students of biology education on entomology course.

Treatment class scored higher than the control class that does not use an articulation learning model by using Mnemonic. It is proved that the learning model articulation by using Mnemonic have an influence on student learning outcomes. This is because the articulation learning model by using mnemonic method has advantages that can make students more quickly to understand the material presented by the faculty because college students are given roles that require the performance of their own ability to understand the material and deliver material. This is in accordance with the opinion of Huda(2010) which states that the articulation of the model learning is a model of learning that requires students actively in learning where students are formed into small groups, each student in the group has the task of interviewing friends group discussed about the new material.

Mnemonic methods to attract students to the spirit of learning and facilitate students to remember the material appropriate mindset and creativity of the students themselves. By combining the model of articulation and Mnemonic as this method, students are taught how to accept and cultivate good study materials to make it easier to remember later on. It can change the paradigm of educator-centered teaching only, because according to the existing curriculum teaching concept for students (Student Centered) . Abdul (2011) states that mnemonic method has proved very helpful in improving long-term memory in learning biology and can collaborate with learning model there, because basically the ability to remember is possessed by every human being and the concern is how the man would hone his memory and became able .

In this case, Regular Morning A Class students who use the articulation by using mnemonic learning model method can more quickly understand and remember what are delivered by a lecturer, because through the process of understanding and try to remember the material with the ability to process the information that will facilitate students acquire learning objectives as expected and not easily forgotten. Unlike the Regular Morning B Class that do not use articulation learning model that



using mnemonic method, researchers deliver learning material with the lecture method (Educator Centered) and very monotonous. Only a lecture, question and answer and discussion so that the learning experiences gained learner is not varied and was not yet understand the material presented by the lecturer. This will affect the success of students in learning.

CONCLUSION AND REMARK

Based on the description of the results, it can be concluded that there are effect of articulation learning model by using mnemonic method for the results of Entomology learning outcomes of fifth grade college students of Biology Education At Faculty Of Teacher Training and Educational Mulawarman University 2012/2013 learning year.

Based on the research that has been done, the researchers present some suggestions as follows; (1) learning model by using Mnemonic Articulation is very good if this model is applied in the lesson on the sidelines of the use of conventional learning models, to create a different atmosphere that is more varied so as to eliminate student boredom. To keep watching and adjusting the fit between the model and the method of learning with teaching materials; (2) When teaching, educators should better understand every detail of syntax in the articulation of learning models and mnemonic method, also adapts to the material that will be presented, as well as maximize the planning and management of time before applying this model to the class, in order to learn the results obtained over optimal .

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