THE INFLUENCE OF CONTEXTUAL LEARNING MODEL AND STUDENTS MOTIVATION TO LEARN THE RESULTS OF THE TEN GRADE BIOLOGY STUDENT

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Abstract: This study aims to determine the effect of using model of contextual learning and students motivation to learn the results of biology. The population of this study SMAN 7 Pandeglang totaled 498 students, with XII class consist of 4 classes, XI class consist of 5 classes and ten class consist of 5 classes with two classes of science programs and 3 classes of social programs. The sampling technique used in this study is a random sampling technique with X MIA 1 and X MIA 2 classes that serve as the research sample. This research was conducted in SMAN 7 Pandeglang, conducted in October until november 2014. The research method used in this research is to design an experimental method " Posttest Only Control Design ". The findings showed that contextual learning model more effective than direct learning. Contextual learning does not only affect the students who have high motivation to learn also have a effect on student learning outcomes with a low learning motivation. The contextual learning does not only able to improve learning outcomes but more on students motivation effectively to achieve better learning outcomes.

Keyword: contextual learning models, learning motivation, biology learning outcomes

PRELIMINARY

The learning process is a very fundamental element in the implementation of each type and level of education. This means the success or failure of achieving an educational goal depends on the learning process experienced by students both in the school environment, as well as in the home or family environment itself.

One of the problems often faced in our world of education is the problem of the weak learning process and the low quality of education at every level and unit of education, especially primary and secondary education. This is supported by the conclusion from Sutjipto cited by Muslich (2007: 2) which states that only about 50 percent of teachers in Indonesia have standardization and competence. These conditions are still felt to be lacking so that the quality of our education has not shown significant improvement. In addition, the learning process in the classroom is directed at the child's ability to memorize information, the child's brain is forced to remember and accumulate a variety of information without being required to understand the information he recalls to connect with everyday life (Sanjaya, 2006: 1).

Efforts to overcome these problems require a contextual learning strategy. According to Sanjaya (2006: 253) contextual learning emphasizes the process of full student involvement to be able to find the material being learned and relate it to real life situations so that it encourages students to be able to apply it in their lives. Contextual learning involves students fully in the learning process. Students are encouraged to indulge in learning material in accordance with the topics to be studied. Contextual learning is not just about listening and taking notes, but learning is a hands-on experience. Because through this experienced process it is expected that student development occurs in its entirety, which not only develops in cognitive aspects but also in the affective and psychomotor aspects of students. Contextual learning enables students to connect the contents of academic subjects with the context of their daily lives to find meaning. According Hinztman cited by Shah (2010: 88) learning is a change that occurs in an organism caused by experiences that can affect the behavior of these organisms. So, changes caused by these experiences can only be said to learn when affecting organisms.

In addition to using the contextual learning model, in overcoming problems of the learning process there needs to be raw input originating from within students. An example is student motivation. Motivation is a psychological condition that drives a person to do something, in this case the learning process. According to Uno (2011: 23) learning motivation is internal and external encouragement to students who are learning to make changes in behavior. The strength of one's learning motivation also influences learning success. So student motivation is one of the factors that influence student learning outcomes to be achieved in the learning process.

The concept of biodiversity is one of the subjects of biology that is closely related to everyday life. For example, every human being has a different physical form, every plant or animal in the environment is different. Broadly speaking, biodiversity is divided into three levels, namely gene diversity, species diversity and ecosystem diversity. Biodiversity at the gene level causes variations between similar individuals. For example, in everyday life we can see a variety of colors on roses, various kinds of wattle (combs) on chickens, different motives on shells. At the level of biodiversity, we can observe species from different physical forms even in the same group. For example, the difference between coconut, aren and areca palm trees. Or the difference in legumes, for example peanuts, green beans and red

beans and finally is biodiversity at the ecosystem level. At this ecosystem level, there are interactions between living things (biotic components) and their environment (abiotic components) that will form an ecosystem. Therefore, this study utilizes a contextual learning model and also students' motivation to achieve biology learning outcomes on the concept of biodiversity.

THEORY STUDY AND METHOD
Learning and Learning Outcomes

Learning is a series of mental and physical activities to obtain a change in behavior as a result of the experience of individuals in interactions with their environment that involves cognitive, affective and psychomotor. In learning, behavior changes are expected to occur as a result of the learning activities that have been carried out. These changes are the results that have been achieved in the learning process. For example there is a change in students who previously did not know to know, who do not understand to understand, and so on.

Learning is not an activity that stands alone but there are other elements that are directly involved in it, these elements are raw input, learning teaching process, output, environmental input and instrumental input.

One instrumental input is a contextual learning model. Contextual learning according to Sanjaya (2006: 253) is a learning model that emphasizes the process of full student involvement to be able to find the material being studied and relate it to real life situations so that it encourages students to be able to apply it in their lives. Contextual learning involves students fully in the learning process. Students are encouraged to move to study the subject matter in accordance with the topics to be studied. Contextual learning is not just listening and taking notes, but learning is a firsthand experience. Through this experienced process it is hoped that student development will occur in its entirety, which not only develops in cognitive aspects, but also affective and psychomotor aspects. According to Nurhadi quoted by Muslich (2007: 41) Contextual learning is expected that students can find their own material learned. Students 'knowledge and skills are obtained from students' efforts to construct new knowledge and skills when they learn. According to Johnson (2010: 65) contextual learning is a comprehensive system and consists of interconnected parts. If these parts are intertwined with one another, it will produce an effect that exceeds the results given separately by the parts. So in the separate contextual learning sections involving different processes, which when used together will be able to make students form a relationship that produces meaning.

Blanchard, Berns and Erickson quoted by Komalasari (2013: 6), stated that:

"Contextual teaching and learning is a conception of teaching and learning that helps teachers relate subject matter content to real world situations; and motivates students to make connections between knowledge and its applications to their lives as family members, citizens, and workers and engage in the hard work that learning requires. "

Thus contextual learning is a learning concept that helps teachers link material learned with real-world situations of students and encourages students to make connections between the knowledge they have and their application in their lives as family members, citizens and workers.

The method used in this research is a quantitative research method with an experimental approach. The research design used is a 2 x 2 factorial design, which is a research design used to examine the effect of two or even more than two independent variables on the dependent variable in experimental research. Here is

a 2 x 2 factorial design table picture in this study.

Motivasi Siswa (B)	Model Pembelajaran (A)	
	Kontekstual (A_1)	Langsung (A_2)
Tinggi (B_1)	A_1B_1	A_2B_1
Rendah (B_2)	A_1B_2	A_2B_2

Information :

A1B1: The group of students treated using a contextual learning model with students who have high learning motivation.

A2B1: Group of students treated using a direct learning model with students who have high learning motivation.

A1B2: The group of students treated using a contextual learning model with students who have low learning motivation.

A2B2: The group of students treated using a direct learning model with students who have low learning motivation.

The population in this study were SMA Negeri 7 Pandeglang students, totaling 498 students with class XII totaling 4 classes, class XI totaling 5 classes and class X totaling five classes with 2 classes in the MIA specialization program (Mathematics of Natural Sciences) and Three classes in the IIS specialization program (Social Sciences).

Sampling treatment A is the experimental class and the control class is done by purposive sampling, where the sample is drawn directly from the population to get A1, namely class X MIA 1 and A2, namely class X MIA 2. For sample treatment group B as an attribute or moderator variable test to obtain the attributes of B1 and B2 in the experimental class and control class using a student learning motivation questionnaire.

The research design used is True Experimental. According to Sugiyono (2009: 112) experimental true is a true experiment. Because with this design, researchers can control all external variables that affect the course of the experiment. There are two experimental true forms, namely Posttest Only Control Design and Pretest-Posttest Control Group Design. In this study Posttest Only Control Design is used in which in this study there are two groups chosen randomly, one group is given treatment (treatment) and one group is not given treatment (treatment). The group that was given treatment was called the experimental group while the group that was not given treatment was called the control group. Following is the Posttest Only Control Design table.

Kelompok	Perlakuan	Pengukuran (Posttest)
Eksperimen	**X**	A_1
Kontrol	**Y**	A_2

Information :

X: The treatment given to the experimental group is the contextual learning model.

Y: The treatment given to the control group is the direct learning model.

A1: Posttest / measurement carried out in the experimental group.

A2: Posttest / measurements carried out in the Control group.

Validity test calculations in this study were carried out using SPSS 17 on a computer with a significant level (α) = 0.05, if r count> r table, then the questionnaire as a measuring device is said to be valid or there is a real correlation between the two variables. While the reliability test calculation also uses the help of SPSS 17 program on a computer With a significant level (α) = 0.05, if r count> r table, then the measuring device, the questioner, is said to be reliable or reliable.

Data analysis techniques used in this study were two-way analysis of variance (two-way anava) and t test. before Anava

is used, the normality test and homogeneity test are firstly performed which is a requirement in using analysis of variance. Testing with two-way ANAVA technique is used to test the hypotheses of the research conducted.

RESULTS AND DISCUSSION

Based on research that has been done, there is an average difference between the Experiment class using the contextual learning model with an average of 77.50 and the Control class using the direct learning model with an average of 72.50.

Student Biology Learning Outcomes Using Contextual Learning Models Are Higher Than Student Biology Learning Outcomes Using Direct Learning.

Based on the hypothesis test, it is known that the calculated t value obtained is 2.560 while the value of t table with df = 38 at a significance level of 0.05 is 1.304. Therefore t arithmetic 2.560> t table 1.304 then H0 is rejected and H1 is accepted. Based on this description it can be concluded that the biology learning outcomes of students who use the contextual learning model are higher than the biology learning outcomes of students who use direct learning. That is because the contextual learning model is compatible with biological learning material on the concept of biodiversity and is attractive to students because students are directly involved with real-world concepts compared to direct learning models in the classroom.

Biology Learning Outcomes Of Students Who Have High Motivation To Learn Are Higher Than Students Who Have Low Learning Motivation.

Based on the hypothesis test, it is known that the calculated t value obtained is 2.560 while the value of t table with df = 38 at a significance level of 0.05 is 1.304. Therefore t arithmetic 2.560> t table 1.304 then H0 is rejected and H1 is accepted. Based on this description it can be concluded that the biology learning outcomes of students who have high learning motivation are higher than the biology learning outcomes of students who have low learning motivation. That is because students who have high learning motivation have a better desire to get high learning outcomes so that they demand themselves to be better in the learning process compared to students who have low learning motivation.

There Is An Interaction Effect Between The Use Of Contextual Learning Models And Student Motivation Towards Student Biology Learning Outcomes.

The results of hypothesis testing show that there is a significant interaction effect between contextual learning models and learning motivation on student biology learning outcomes. This is evidenced by the results of the comparison of the calculated F value with F table which shows the calculated F value of 3.931> F table 3.522 so that H0 is rejected H1 is accepted. The use of effective learning models as one of the competencies of teachers developed is an external factor that influences student motivation and learning outcomes. Motivation of learning as one of the intrinsic elements of students is very important in supporting activities in learning.

In addition, the effect of interaction between learning models, learning motivation and student biology learning outcomes is evidenced by the correlation coefficient of 0.506 which shows a very high level of correlation. The value of the coefficient of determination (r square) between the use of learning models and learning motivation towards student biology learning outcomes is 0.256 which implies that the use of learning models and

learning motivation contributes continuously to student biology learning outcomes by 95% while the rest is influenced by other factors which are not discussed in this study such as the background of students and the surrounding environment. Several factors that influence the learning outcomes and the continuous creativity of teachers need to be developed in an effort to improve student learning outcomes. The use of contextual learning models is one way for teachers to improve student learning outcomes.

Biology Learning Outcomes Of Students Who Use Contextual Learning Models And High Student Motivation Are Higher Than Biology Learning Outcomes Of Students Who Use Direct Learning And High Student Motivation.

Based on the acquisition of the average value of students who use the contextual learning model of high motivation the average score is 80 higher than that of the class that uses the direct learning model of high learning motivation whose average score is 75. From these results, the contextual and motivation learning model high learning from students can be said to be more effective in improving student biology learning outcomes compared to direct learning models with the same motivation from students.

Based on the results of the analysis also showed that the calculated t value obtained was 1.936 while the value of t table with df = 18 at a significance level of 0.05 was 1.330. Therefore t arithmetic 1,936> t table 1,330 then H0 is rejected and H1 is accepted. In conclusion, student biology learning outcomes using contextual learning models and high student motivation are higher than student biology learning outcomes using direct learning and high student motivation. That is because the contextual learning model is more attractive to students than the direct

learning model in the classroom even with the same learning motivation from students.

Student Biology Learning Outcomes Using Contextual Learning Models And Low Student Motivation Are Lower Than Learning Outcomes That Use Direct Learning Models And Low Student Motivation.

Based on research data that uses a contextual learning model low learning motivation has an average learning outcome 75 greater than the class that uses a direct learning model of low motivation that the average value is 70. The results of the analysis show that the t value obtained is 1.936 while the value of t table with df = 18 at the 0.05 significance level is 1.330. Therefore t arithmetic 1,936> t table 1,330 then H0 is rejected and H1 is accepted with the statement that the learning outcomes of biology students who use contextual learning models and low student motivation are higher than the results of learning biology students who use direct learning and low student motivation . Based on the comparison of the average value and the results of hypothesis testing, it is stated that the contextual learning model is able to improve student learning outcomes where the learning model used provides ease of understanding and attractiveness for students during learning activities. Thus the more effective use of contextual learning models and student motivation, the student learning outcomes will be higher.

Student Biology Learning Outcomes Using Contextual Learning Models And High Student Motivation Are Higher Than Student Biology Learning Outcomes Using Contextual Learning Models And Low Student Motivation.

In the group of students who use the contextual learning model high learning

motivation has an average of 80 higher learning outcomes compared with students who use the contextual learning model and low learning motivation who have an average learning outcome of 70. In addition, the results of the analysis show that the The count obtained is 3.873 while the value of t table with df = 18 at a significance level of 0.05 is 1.330. Therefore t count 3.873> t table 1,330 then H0 is rejected and H1 is accepted. In conclusion, student biology learning outcomes using contextual learning models and high student motivation are higher than students' biology learning outcomes using contextual learning models and low student motivation.

Student Biology Learning Outcomes Using Direct Learning And High Student Motivation Are Lower Than Student Biology Learning Outcomes Using Direct Learning And Low Student Motivation.

The analysis showed that the calculated t value obtained was 1.936 while the value of t table with df = 18 at a significance level of 0.05 was 1.330. Therefore t arithmetic 1,936> t table 1,330 then H0 is rejected and H1 is accepted. In conclusion, student biology learning outcomes using direct learning models and high student motivation are lower than student biology learning outcomes using direct learning models and low student motivation.

Based on the comparison of the average scores and hypothesis testing, the use of learning models is very influential on student learning outcomes with different levels of motivation. Students who have high learning motivation are more able and easy to accept learning material using direct learning models compared to students who have low learning motivation using the same learning model.

Based on the results and discussion of the hypothesis testing that was

formulated, overall the contextual learning model proved to be more effective than the direct learning model. Contextual learning not only affects students who have high learning motivation but also significantly affects student learning outcomes with low learning motivation. Contextual learning is not only able to improve learning outcomes but is more fundamental to student motivation so as to support effective student participation and learning activities in achieving better learning outcomes.

CONCLUSION

Based on the results of the research that has been carried out obtained the following conclusions:
1. Student biology learning outcomes using contextual learning models are higher than student biology learning outcomes using direct learning. This shows, the learning process that uses a contextual learning model is more effective than the learning process that uses a direct learning model.
2. Biology learning outcomes of students who have high motivation to learn are higher than students who have low motivation to learn. This shows, the learning outcomes of students who have high learning motivation are greater than students who have low learning motivation.
3. There is an interaction effect between the use of contextual learning models and student learning motivation on student biology learning outcomes. This shows that the contextual learning model is more appropriate for students who have high learning motivation while the direct learning model is more appropriate for students who have low learning motivation.
4. Biology learning outcomes of students who use contextual learning models and high student motivation are higher than biology learning outcomes of students who use direct learning and

high student motivation. This shows that the contextual learning model is more appropriate for students who have high motivation than students who have low motivation.

5. Biology learning outcomes of students who use contextual learning models and low student motivation are higher than learning outcomes that use direct learning models and low student motivation. Show that the contextual learning model is better than the direct learning model for students who have low motivation.

6. Student biology learning outcomes using a contextual learning model and high student motivation are higher than student biology learning outcomes using a contextual learning model and low student motivation. This shows that the contextual learning model is more suitable for students who have high learning motivation.

7. Student biology learning outcomes using direct learning and high student motivation are lower than student biology learning outcomes using direct learning and low student motivation. This shows that the direct learning model is more appropriate for students who have low learning motivation

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