Students’ Interest in Concept-Based Learning and Drill Method Learning and Their Concept Mastery Achievement in Biology Instructional Methodology Course

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Abstract. This research is part of the research on the development of the concept-based learning model and drill method. In this article, we will describe the relationship between students’ interest in concept-based learning model and drill method with students’ mastery of concepts in the Biology Instructional Methodology course. A total of 37 samples were students majoring in Biology Education, Padang State University. Data were collected using instruments in the form of psychological questionnaires about student interests and instruments in the form of descriptive questions. Based on the analysed data, it is known that the variable student interest in the concept-based learning model and drill method has a positive relationship with student mastery of concepts, which is r= 0.169 and sig. 0.316 using the Spearman's Rank Correlation Test. This shows that the higher the student's interest in learning using the concept-based learning model and drill method, the higher the students' mastery of concepts in the Biology Instructional Method course.

1. Introduction

The learning challenge in the 21st century is a paradigm shift from teacher-centred to student-centered. Therefore, learning must rely on student activities by facilitating students to learn actively, such as cooperative learning [1]. Apart from cooperative learning, there are still choices of learning models that can be used to make students more active. This depends on the characteristics of the learning material, students, or the learning model itself, whether it is suitable or not used in the classroom. If the student learning model is suitable and can increase student interest in learning, learning outcomes should also improve. Interest in learning has a positive relationship with student learning outcomes [2].

Learning models are very diverse. In increasing the activeness of student participation in class, several learning models that can be used include cooperative learning, contextual learning, realistic learning, problem-based learning, project-based learning, problem posing, reciprocal learning, and others [3-4]. With the many existing learning models, it is necessary to choose a learning model that is suitable for student characteristics, for example, students' interest in the type of learning model itself. Currently, many research results show that interest in learning has a vital role in learning outcomes, so this study aims to determine the relationship between student interest in concept-based learning...
models and drill methods with student mastery of concepts. Based on the predetermined objectives, the problem formulation of this study is how is the relationship between students' interest in the concept-based learning model and the drill method with students' conceptual mastery in the Biology Instructional Methodology course?

2. Method
This research is a part of development research regarding the concept-based learning model and drill method. The data used are data collected using conceptual mastery questions in the Biology Instructional Methodology course and psychological questionnaires used to capture data about student interest in the concept-based learning model and the drill method. The number of samples used in this study was 37 students who were students majoring in Biology Education, Padang State University.

As can be seen in Figure 1, this research is a correlational study with two variables, namely the value of students' mastery of concepts in the Biology Instructional Methodology course and the value of students' interest in the concept-based learning model and the drill method. After the data was obtained, the data were processed statistically using the Spearman's Rank Correlation test to determine the direction of the relationship between the two variables and the degree of correlation between the two variables. The significance value used for statistical test is 0.05 (α = 5%). After obtaining the correlation value, the data is then discussed based on the scientific literature.

3. Results and discussion
The average value of students' mastery of concepts after carrying out learning using the concept-based learning model and the drill method was 65.3 and the average value of students' interest in the concept-based learning model and drill method was 86. When viewed from the respective achievements of students, it is known that in general, the value of student mastery of concepts and student interest in concept-based learning models and the drill method are directly proportional. This is indicated by the movement of the graph which can be seen in Figure 2. When the student gets low concept mastery scores, the student gets a fairly low score on the value of his interest in concept-based learning models and the drill method Thus, the concept-based learning model and the drill method can be used as a basis for increasing concept mastery, provided that students have a high interest in concept-based learning models and drill methods.
Students' interest in concept-based learning is quite high because all of them scored above 75 (see Figure 3). In contrast to the achievement of scores on students' interest in concept-based learning, the achievement in conceptual mastery was slightly lower than the value of student interest because some students had scores below 60. Student achievements in terms of interest were said to be quite high, indicating that students were interested in learning by using a concept-based learning model and drill method. The role of student interest in learning is one of the important things in increasing the mastery of the concept. Some ways that can be done to further develop students' interest in learning are to explore existing interests and also form new interests [5] in students so that students have some interest in learning.
After analysing the achievement of students' interest scores and concept mastery, the correlation statistical test was then carried out. Based on the calculation results that can be seen in Table 1, the correlation coefficient value obtained is 0.316 or is in a sufficient category. That is, the level of strength of the relationship or correlation between student interest in the concept-based learning model and the drill method with the student's conceptual mastery is said to be sufficient and interrelated in one direction. The unidirectional relationship is marked by a positive sign on the correlation coefficient, which indicates that the higher the student's interest in the concept-based learning model and the drill method, the higher the concept mastery score obtained by the student. Thus, the concept-based learning model and drill method can always be used to improve students' mastery of concepts in the Biology Instructional Biology course in the future and be used as a reference in teaching students in other courses.

The high interest of students in concept-based learning models and drill methods can be caused by several things, including that these models and methods allow students to study material specifically and repeatedly so that students will find it easier to understand the material being studied. Students will also get used to solving a problem. These problem-solving skills are an important part of the 21st-century learning trend [6]. For learning in the future to further increase student interest, this learning model can also be combined with learning media in the form of technology. One of the media that can be inserted is learning media such as digital books [7] which are oriented towards learning Science, Technology, Engineering and Mathematics / STEM [8].

Student interest is an important aspect of learning. Interest in concept-based learning models and drill methods can be said to be a situational interest which will certainly have advantages. This situational interest will make students more active in participating so that learning can be better because it involves behaviour and cognitive aspects [9-10]. With the high interest of students in the concept-based learning model and the drill method which have a one-way relationship with students' conceptual mastery, it is hoped that this learning model can be used consistently in the Biology Instructional Method course.

4. Conclusion

The concept-based learning model and drill method train students to be able to deeply understand the concepts learned in class. Besides, students are directed to be able to master the concept after being given several exercises related to the material given at each meeting after learning has been carried out at each meeting, or what we call the drill method. The findings of this study indicate that the interest of prospective biology teacher students in concept-based learning and drill method models is related to students' mastery of concepts in this course. Thus, the use of concept-based learning models and drill methods in similar lectures can also be considered to be applied to the same course in other places.

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