

Increasing Christian Education Learning Motivation Through a Scientific Approach

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Abstract. The purpose of this study is to determine the positive and significant differences in Christian Education learning motivation in students using a scientific approach with Christian Education learning motivation in students using a conventional approach in class XI majoring in Culinary Engineering of SMK Negeri 1 Siatas Barita Learning Year 2023/2024. This research method is a quantitative approach with quasi-experimental methods and with post-test only control group design. The population is all students who are Christians class XI of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita for the 2023/2024 Learning Year which amounts to 63 people. The research sample was determined by Saturated Sampling, namely class XI Culinary 1 students totaling 32 people as an experimental class using a scientific approach and class XI Culinary 2 totaling 31 people as a control class using a conventional approach. The instrument used in this study was a questionnaire item of 32 items. The research data for the questionnaire were analyzed using the Separated Variance t-test formula. From the calculation results, $t_{count} = 5.0448 > t_{table} (\alpha/2=0.05/2=0.025) = 1.999$. It turns out $-t_{count} < -t_{table} (-5.0448 < -1.9996)$. The calculated value is in the area of the rejection curve H_0 and acceptance H_a . Thus, it can be concluded that the research hypothesis is accepted, namely that there are positive and significant differences in the motivation to learn Christian Education in students using a scientific approach with the motivation to learn Christian Education in students using a conventional approach in class XI majoring in Culinary Planning, SMK Negeri 1 Siatas Barita Learning Year 2023/2024. The difference in motivation to learn Christian Education in grade XI students of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita, North Tapanuli Regency for the 2023/2024 Learning Year is known from the average motivation to learn Christian Education in students with a scientific approach is 89.9063, higher than the average motivation to learn Christian Education in students with a conventional approach, which is 82.6452.

Keywords: scientific approach, learning motivation, Christian Education

The purpose of this study is to determine the positive and significant differences in Christian Education learning motivation in students using a scientific approach with Christian Education learning motivation in students using a conventional approach in class XI majoring in Culinary Engineering of SMK Negeri 1 Siatas Barita Learning Year 2023/2024. This research method is a quantitative approach with quasi-experimental methods and with post-test only control group design. The population is all students who are Christians class XI of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita for the 2023/2024 Learning Year which amounts to 63 people. The research sample was determined by Saturated Sampling, namely class XI Culinary 1 students totaling 32 people as an experimental class using a scientific approach and class XI Culinary 2 totaling 31 people as a control class using a conventional approach. The instrument used in this study was a questionnaire item of 32 items. The research data for the questionnaire were analyzed using the Separated Variance t-test formula. From the calculation results, $t_{count} = 5.0448 > t_{table} (\alpha/2=0.05/2=0.025) = 1.999$. It turns out $-t_{count} < -t_{table} (-5.0448 < -1.9996)$. The calculated value is in the area of the rejection curve H_0 and acceptance H_a . Thus, it can be concluded that the research hypothesis is accepted, namely that there are positive and significant differences in the motivation to learn Christian Education in students using a scientific approach with the motivation to learn Christian Education in students using a conventional approach in class XI majoring in Culinary Planning, SMK Negeri 1 Siatas Barita Learning Year 2023/2024. The difference in motivation to learn Christian Education in grade XI students of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita, North Tapanuli Regency for the 2023/2024 Learning Year is known from the average motivation to learn Christian Education in students with

a scientific approach is 89.9063, higher than the average motivation to learn Christian Education in students with a conventional approach, which is 82.6452.

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INTRODUCTION

Education must be in accordance with the goals achieved, therefore the success of a nation is largely determined by the quality of its education. To achieve the success of the nation's education, it is necessary to carry out teaching and learning activities in schools. Teaching and learning activities are activities in a school that are carried out intentionally and created by a teacher, teacher and students who will learn. In this case, the role of the teacher is very important. How are the teacher's efforts in fostering learning motivation so that students carry out learning activities well. With earnest learning motivation, what is conveyed by the teacher can be easily absorbed by students. Motivation has a huge influence on the learning process. A student will be able to complete the course material if the student has the motivation to learn.

Learning according to the 2013 curriculum is carried out with a scientific approach, which encourages students to be more active in observing, questioning, reasoning, trying, communicating. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 103 of 2014 concerning Learning in Primary and Secondary Education stated, "The scientific approach consists of five learning experiences, namely observing, questioning, collecting information (experimenting), associating, and communicating."

The scientific approach is derived not only from knowledge, skills and attitudes, but more importantly how students acquire these three things. Learning the 2013 Curriculum in scientific approach learning activities is a learning process that is structured in such a way that students can actively build concepts, principles or laws through the stages of observation (identifying and finding problems), formulate problems, propose and implement, formulate hypotheses, collect data with various techniques, conduct data analysis, draw conclusions and communicate concepts, principles or laws that have been "discovered" by students in knowing, understanding various materials, that information can come from anywhere, anytime, not relying on unidirectional information from the teacher (Hosnan, 2013: 34).

Christian education is very important for students, because student growth and development really need guidance, demands, encouragement and direction so that children can master and practice the teachings of Christianity properly and correctly. Christian education is a Bible-based, Christ-centered, and dependent teaching and learning process that guides every child at all levels of growth through teaching and experience according to God's will to enable children to grow in faith that they have Christ and behave like Christ. Based on temporary observations conducted at SMK Negeri 1 Siatas Barita, researchers noted symptoms that showed some students who seemed to lack enthusiasm and motivation to learn, especially in Christian Religious Education subjects. This can be seen from those who are not diligent in doing tasks, immediately discouraged in the face of difficulties, do not have interest in various kinds of problems and prefer to do the same tasks. Therefore, there needs to be encouragement

and effort from Christian Education teachers to overcome this as teachers who have skills in mastering student attitudes. These two things are the basis for researchers, to carry out research related to scientific approaches with learning motivation in Christian Education subjects.

METHODS

The method used in this study is a quasi-experimental method (pseudo-experiment) with a post test only control group design. There are two types of quasi-experimental research groups, namely control groups and experimental groups. This post test only control group design emphasizes the comparison of treatment between the two groups, namely the control group with the experimental group where the experimental group given treatment / special treatment in this case is a scientific approach, while the control group does not get a treatment / special treatment does not use a scientific approach only using a conventional approach. The research design can be described as follows:

Groups	Treatment	Post test
Experiment	X	O
Control	-	O

The population in this study is all 63 students who are Protestant Christians Class XI of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita for the 2023/2024 Learning Year. The research sample was determined using saturated sampling techniques, as stated by Sugiyono (2014: 127) who stated that "saturated sampling is a sampling technique when all members of the population are used as samples. The instrument used in this study, both for variable X and variable Y used a closed questionnaire (questioner) where the researcher has provided answers in the form of multiple choices consisting of four options. The scale of values used in each item is the Likert scale proposed by Sugiyono, namely: a. always (given a weight of 4), b. often (given a weight of 3), c. sometimes (given a weight of 2), d. never (given a weight of 1).

RESULT

Based on the results of the study, it was found that students who were taught using a scientific approach with an average score achieving learning motivation of 89.9063 had differences with students taught using conventional approaches with an average score of 82.6452. This means that there are positive and significant differences in the motivation to learn Christian Religious Education in students using a scientific approach with the motivation to learn Christian Education in students using a conventional approach in class XI of the Department of Culinary Planning, SMK Negeri 1 Siatas Barita, North Tapanuli Regency for the 2023/2024 Academic Year.

The scientific approach is better used because, the learning process looks active and the classroom atmosphere becomes lively. In the learning process that uses a scientific approach makes students more active in class through the process of observing objects to be studied,

asking about what is unknown, collecting information from what is observed and asked, associating and communicating, so that students' creative thinking skills will grow.

Unlike the conventional approach, in the learning process it can be seen that students only pay attention to the teacher explaining, are not too active, and tend to be passive. Students tend to only listen and pay attention to what is conveyed, and their curiosity about the material explained is still relatively lacking. To test both homogeneous or unhomogeneous samples, variance homogeneity testing is used. The F_{count} is compared with the F_{table} with the numerator df ($n_1-1 = 32-1 = 31$) and the denominator df ($n_2-1 = 31-1 = 30$) with an error rate of 5% then the F_{table} price = 1.834. In this case, the provision applies if $F_{\text{count}} < F_{\text{table}}$ means homogeneous variance and vice versa if $F_{\text{count}} > F_{\text{table}}$ means inhomogeneous variance. Based on the results of $F_{\text{count}} = 1.061$ compared to $F_{\text{table}} = 1.834$ means $F_{\text{count}} < F_{\text{table}} = 1.061 < 1.834$ means that homogeneous variance, thus it can be concluded that the variant of learning motivation data for Christian Education taught with a scientific approach and with a conventional approach in class XI of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita Academic Year 2023/2024 is homogeneous. To determine the rejection and acceptance of the research hypothesis, the calculated value is obtained on the right side of the two-party test curve, namely $t_{\text{count}} = 5.0448$ and t_{table} ($df = n_1 + n_2 - 2 = 32 + 31 - 2 = 61$) for a 5% error of the two-tail test, the price of $-t_{\text{table}} = -1.9996$ and $t_{\text{table}} = 1.9996$. It turns out $-t_{\text{count}} < -t_{\text{table}}$ ($-5.0448 < -1.9996$). It is known that the calculated value is in the rejection area H_a Rejection H_0 . Thus, it can be concluded that there are positive and significant differences in the motivation to learn Christian Education students who are taught with a scientific approach with the motivation to learn Christian Education which is taught with a conventional approach in class XI of the Department of Culinary Engineering of SMK Negeri 1 Siatas Barita Academic Year 2023/2024.

Based on the calculation results of t_{count} with the separated variance formula, t_{count} results = 5.0448216 and t_{table} ($df = n_1 + n_2 - 2 = 32 + 31 - 2 = 61$) for the error level of $\alpha = 5\% = 0.05$ two-party test ($\alpha/2 = 0.05/2 = 0.025$) then the price of $t_{\text{table}} = 1.9996$. It turns out $-t_{\text{count}} < -t_{\text{table}}$ ($-5.0448 < -1.9996$). Thus H_0 is rejected and H_a is accepted. So in conclusion, there are positive and significant differences in the motivation to learn Christian Education students who are taught with a scientific approach with the motivation to learn Christian Education who are taught with a conventional approach in class XI of the Department of Culinary Planning, SMK Negeri 1 Siatas Barita Learning Year 2023/2024.

CONCLUSION

From the results of the study, it is known that from the hypothesis test, $t_{\text{count}} = 5.0448216$ and t_{table} ($df = n_1 + n_2 - 2 = 32 + 31 - 2 = 61$) for the error level of $\alpha = 5\% = 0.05$ two-party test ($\alpha/2 = 0.05/2 = 0.025$) then the price of $t_{\text{table}} = 1.9996$. Then $-t_{\text{count}} < -t_{\text{table}}$ ($-5.0448 < -1.9996$). Thus H_0 is rejected and H_a is accepted. So in conclusion, there are positive and significant differences in the motivation to learn Christian Education students who are taught with a scientific approach with the motivation to learn Christian Education who are taught with a conventional approach in class XI of the Department of Culinary Planning, SMK Negeri 1 Siatas Barita Learning Year 2023/2024.

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