

The Effect of Guided Discovery Model on Sociology of Religion Courses in Improving Students' Critical Thinking Skills

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ABSTRACT

Critical thinking is the mother of life. Critical thinking skills are one of the fundamental skills in the modern era. This study aims to examine the effect of the guided discovery model on students' critical thinking skills. This study uses an experimental method with a one group pre-test-post-test design with a population of IAIN Batusangkar students taking the sociology of religion course. The sample was determined by random sampling technique with a sample of 28 people. Data were collected using a scale-shaped instrument. Data processing with the help of SPSS .05 application. Prerequisite tests were carried out before data analysis, namely normality test and homogeneity test. Analyzed data using paired sample t test. The results showed the guided discovery model had a significant effect on students' critical thinking skills and it was proven that there was a significant difference between students' critical thinking skills before and after the application of the guided discovery model. The criteria for the significance of the results of the study were strengthened by the N-Gain value the data before and after treatment which was in the very good category.

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1. INTRODUCTION

Student success in higher education is not only determined by academic intelligence alone, but is also greatly influenced by critical thinking skills. Critical thinking is a person's way of thinking to evaluate something both statements, ideas, and arguments in problems solving (Zhang & Kim, 2018). Critical thinking is also commonly called direct thinking, because thinking is directed at the expected goals. Critical thinking is basically the ability to solve problems logically (Bandyopadhyay & Szostek, 2019). Critical thinking is a critical and analytical thinking process and requires a high-level reasoning

process to achieve the desired results (Wechsler et al., 2018). Critical thinking becomes very important, because with this thinking process, individuals gain a complex understanding of the various information obtained and enable them to make the right decisions in solving real-life problems. (Dwyer et al., 2014).

Islam actually continuously encourages its people to always think about something that is in itself and the universe created by Allah SWT. Many times the qur'an says: "Afala Tatafakkarun" -do you not think (QS. Al-An'am: 50). "Afala Ta'qilun" do you not use your mind (QS. Al-Baqarah ayat 44 dan 76, Ali'Imron ayat 65, dan QS. al-An'am ayat 32). "La'allakum tatafakkarun" so that you think (QS. al-Baqarah ayat 219 dan 266). "La'allakum ta'qilun" so that you understand (QS. al-Baqarah ayat 73 dan 242 dan QS. al-An'am ayat 151). "In kuntum ta'qilun" if you understand it (QS. Ali 'Imran ayat 118). And many more Allah emphasizes the use of reason and logical thinking.

So far, studies on learning models related to critical thinking skills have been carried out by previous researchers. Several previous studies include research on the effectiveness of problem-based learning, inquiry learning, project-based learning, contextual learning, and the effect of cooperative learning models on critical thinking skills (Akhdinirwanto et al., 2020; Amin et al., 2020; Bustami et al., 2020). al., 2018; Duran & Dökme, 2016; Fitriani et al., 2020; Sari & Prasetyo, 2021; Shandy Narmaditya et al., 2018; Wales & Bishaw, 2020; Warsah et al., 2021). Furthermore, there is also previous research on the discovery learning method to train students' critical thinking skills (Fahmi et al., 2019). Research on the level of critical thinking skills in independent learning using the guided discovery method (Wayudi et al., 2020), and research on critical thinking skills using guided discovery learning assisted by simulation (Fitriyah, 2017). Of the many studies of learning models related to critical thinking skills, no writer has found any research on the effect of guided discovery models based on Islamic values in the sociology of religion courses in relation to students' critical thinking skills. On that basis, this research is interesting to study and explore in order to cover the weaknesses of previous research on learning models, especially guided discovery learning models.

The sociology of religion course was chosen based on the consideration that the sociology of religion studies discusses religious and cultural perspectives in people's lives and religiosity as student social capital (Baauto, 2016; Silviana, 2021). In addition, the sociology of religion is a subdiscipline within sociology that focuses on studying social phenomena related to the relationship between religion and society. In sociological studies, religion is used as a value system that characterizes interactions and social groups. As a value system, religion influences or even determines how people think, act and behave. Therefore, it is important to develop students' critical thinking skills through learning the sociology of religion. However, the actual conditions in the field today are found that the practice of learning using social problems is still minimal. The integration of the study of the Koran in solving social problems is still lacking. This is because learning activities still use monotonous and lecturer-centered learning methods. As a result, learning process is not able to develop students' critical thinking skills.

Among the strategic efforts to address this problem, the authors choose guided discovery by integrating Islamic values in learning activities (Yusup et al., 2021). An educator should be able to become a facilitator and motivator in the process of developing the abilities of his students. Guided discovery was chosen because it has various advantages, including: students can carry out critical thinking processes in learning activities, cultivate and instilling attitudes that support critical thinking skills and students' ability to solve problems, provide a vehicle for interaction between students and lecturers, the material learned can be explored through higher-order thinking skill and last longer because students involved in the process of finding it. Thus, the process of developing and improving students' critical thinking skills can be realized through an innovative and creative learning process.

2. METHODS

This study use a quasi experimental method, not all variables can be manipulated and controlled (Wati & Pudjawan, 2014) (Indra, 2016) (Zakiyatun & Ashari, 2017) (Yusuf , n.d.), which was the

sample of class A students as many as 28 people who took the sociology of religion course in the odd semester at IAIN Batusangkar for the 2020/2021 academic year. Sampling in this study used a random sampling technique, because the random sampling technique each individual in the population has the same opportunity to be sampled (Yusuf, n.d.). Prerequisite tests performed before the main data analysis were normality test and homogeneity test. Analysis data in study used paired sample t-test to see how much influence the guided discovery model based on Islamic values had in improving students' critical thinking skills in learning sociology of religion.

3. FINDINGS AND DISCUSSION

The results this study presented sequentially, namely, starting with the presentation the results of the normality test, the sample data before and after treatment using a guided discovery model based on Islamic values, the results of the data normality test, and the results of data analysis using paired sample t-test. The results of the normality test of the sample data before and after treatment are presented in table 1.

Table 1. Normality Test Results of Sample Data Before and After Treatment

Variables	Before	After
N	28	28
Normal Parameter Mean	54.50	69.50
Std Deviation	11.003	12.069
Most Extreme Absolute	.087	.099
Differences Positive	.087	.097
Negative	-.074	-.099
Kolmogorov Smirnov Z	.462	.523
Asymp Sig (2 tailed)	.983	.947

From the results of data analysis in table 1 above, it is known students' critical thinking skills between before and after being given treatment are normally distributed (sig 2. tailed value > 0.05), so the test can be continued with the homogeneity test.

Table 2. Test Variance Homogeneity

Levene Statistic	df1	df2	Sig.
.026	1	54	.873

Based the results analysis data in table 2, it can be understood that the two groups of data are homogeneous. Because the two conditions for testing the data have been met where the data group is declared homogeneous if the value of sig 2. tailed > 0.05. To get a conclusion from this research, the data was tested. The results of data analysis are in table 3.

Table 3. Paired Sample t-Test Analysis

Paired Differences							
Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			
-15.0	5.121	.968	-16.986	-13.0	-15.5	27	.000

Based on the value of sig 2. tailed, it is proven that the guided discovery model has a significant effect on students' critical thinking skills after being given treatment.

Discussion

Based the results of the research data analysis, it was found that guided discovery model based on Islamic values had a significant effect on students' critical thinking skills. These findings are in line with and further strengthen the findings of Purwati's research (2018) that the guided discovery learning model effective in improving students' critical thinking skills and self-efficacy, but the difference is on the one hand in relation to increasing students' critical thinking skills through the sociology of religion course. Meanwhile, Purwati's research improves students' critical thinking skills through integrative thematic courses. Research with different methods was also carried out by Fitriyah, (2017) which showed that guided discovery learning assisted by PhET simulation with the application of science process skills in science learning on topics of practical and effective pressure improve students' critical thinking skills. This means that the critical thinking ability of students and students can be improved by using guided discovery learning models with a variety of techniques and methods used. However, assessment strategies to reveal students' and students' critical thinking skills also need to be developed with practical and effective assessment strategies, the study of Gustina et.al.,(2020) found that the Edmodo smart phone application can support assessment activities in the social field of the learning process. The advantage of this application is that it has a value accumulation feature that makes it easier for teachers or lecturers to evaluate learning processes and outcomes, including learning in order to develop and improve critical thinking skills.

Critical thinking skills are part of 21st century skills, where at this level students' ways of thinking and understanding are not just memorizing, but are able to retell something told by others, find solutions or formulate hypotheses (Hermond & Tanner, 2020). The active and innovative learning process will be able to improve students' critical thinking skills, because through this learning students' thinking processes are trained critically through thinking experiences that not only focus on logical thinking but also analytical thinking and creative thinking. Critical thinking skills are skills that need to be mastered by students in an educational environment. Critical thinking is a thinking process used to understand, apply, synthesize, and evaluate the information obtained. Critical thinking plays a very important role in moral development, social development, mental development, and cognitive development (Purwati, 2018) (Hermond & Tanner, 2020). (Ismaimuza, 2013) in his research added that students' mathematical creative thinking abilities, where students who took part in PBLKK learning were overall better than students who received KV learning. However, in this study the focus is on developing and improving students' critical thinking through the sociology of religion course.

Critical thinking skills based on Islamic values are important to be trained and improved through family education and the learning process in primary, secondary and tertiary education institutions. Critical thinking requires creativity in understanding concepts so that students can examine what is being learned. Everyone has the power of creativity at different levels. Creativity is the ability to create new products or new ideas and apply them in order to solve various problems (Dahlia et al., 2018). Even though research (Rahman & Manaf, 2017) states that the prerequisite for critical thinking is knowledge, but that knowledge is not the ultimate goal of education. Teachers do not know the thinking ability of students either they are able to connect their knowledge with reality or they just memorize it to prepare for the exam.

Lecturers through the learning process must encourage and facilitate students to develop critical and rational thinking with the aim of reasoning what is right and what is wrong with their own thinking. (Yusup & Marzani, 2018) educators act as facilitators and motivators in the process of developing student abilities. This shows that not all critical thinking methods will be able to solve problems, but there needs to be an in-depth study of effective ways of critical thinking for everyone.

One way to develop and improve critical thinking skills based on Islamic values is through an active learning process and activating students' thinking. In the lecture process, lecturers need to insert Islamic values that students are able to understand the harmony of knowledge and experience and do not forget the basic foundation in life, namely religion. Critical thinking in learning sociology based on Islamic values is trained on students through the application of the guided discovery learning model. The superiority of the guided discovery model has accommodated the realization of an active learning process in facilitating the development of students' critical thinking skills.

The process of developing critical thinking involves various individual abilities, namely identifying sources of information, analyzing its truth, reviewing whether the information is consistent with their previous knowledge, and drawing conclusions based on critical thinking (Linn, 2000). In the literature, critical thinking skills are considered important for promoting highly complex understanding (Kuhn, 1999; Schraw, Crippen, & Hartley, 2006). (Glassner & Schwarz, 2007) in his research argues that critical thinking is gradually being reconsidered to include skills through which one opens new links instead of examining existing links in closed analysis. Therefore, the guided discovery model is problem-oriented learning in which students actively participate in every learning process (Roohr & Burkander, 2020). In the guided discovery learning process, students are not presented directly with learning materials but students are invited and guided to organize their own knowledge (Azizah et al., 2018).

In simple terms, in applying the guided discovery model, the lecturer acts as a supervisor by providing opportunities for students to learn actively and directing student learning activities according to their goals. In general, the guided discovery model does not include the cultivation of certain values, for example the cultivation of Islamic values in lectures at universities with an Islamic background. For this reason, it is necessary to develop a guided discovery model (Nugraha, 2018). The purpose of critical thinking in order to test an opinion or idea, including in this process is to make judgments or thoughts based on the opinions proposed. The purpose of critical thinking is to assess a thought, interpret values & even evaluate the implementation practice of a thought and value (Surya & Puguh, 2015), even critical thinking including considering activities based on known opinions.

4. CONCLUSION

The conclusion of this study is that the guided discovery model based on Islamic values that has been implemented in the sociology of religion lectures has proven to have a significant effect on students' critical thinking skills. The improvement of students' critical thinking skills is shown by the renewal of learning activities, namely the insertion of Islamic teaching concepts in solving social problems during the learning process. The limitation of this study is that not all variables or symptoms that appear and treatment conditions can be tightly controlled, therefore it is recommended for future researchers to conduct similar studies with different treatment designs and carried out with more adequate time and more varied research objects. In the future, it is expected that students' critical thinking skills can be improved by developing designs and learning models as well as counseling services that are in accordance with the demands and developments of social conditions of society and the development of information technology.

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Conflicts of Interest: The author declares there is no conflict of interest in this article, because this article is purely the work of the author with the team starting from planning, carrying out research, making reports and preparing this article until this article is refined with several revisions based on notes from reviewers.

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