Vol 10 No 2, 2025

E-ISSN: 2528-410X

RESEARCH ARTICLES

The Relationship of Readiness for Independent Learning to Attitude and Cognitive Values in Tutorial Learning for Students of the Faculty of Medicine, University of Muhammadiyah North Sumatra

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Abstract: Problem Base Learning (PBL) is a learning strategy that emphasizes learning on students or in other words student-centered learning. Tutorials are a manifestation of the implementation of the PBL program. Student independence is the principle of tutorial activities. Tutorial group discussions cause interaction between students and it is expected that the active learning process will occur. Student assessments in tutorials are based on *attitude* and cognition. Objective: To find out the relationship between the readiness of independent learning and students in the tutorial, namely *attitude* and *cognitive values* in students of the Faculty of Medicine, University of Muhammadiyah North Sumatra. Methods: This study uses an analytical descriptive research method with a cutting-edge approach. The research population is students Faculty of Medicine, University of Muhammadiyah North Sumatra class of 2021 which totals 274 people. The sampling technique used *simple random sampling* (random sample) by drawing lots to find 83 people, the sample size used a categorical correlation formula with an addition of 10% to avoid a shortage of samples in the event of a drop out, which was 83 respondents. Results: The overview of the distribution *of attitude* values shows that the most dominant score is very satisfactory (score 85-100) as many as 63 people (75.9%). The overview of the cognitive value of the tutorial shows that 45 people (55.4%) have unsatisfactory scores (55 – 69). Readiness for independent learning had no relationship with *the attitude* tutorial score, which was 0.209 ($p > 0.05$). Readiness for independent learning had no relationship with the cognitive value of tutorials, which was 0.645 ($p > 0.05$). Conclusion: the readiness of independent learning has no relationship with *the* attitude and cognitive values of students of the Faculty of Medicine, University of Muhammadiyah North Sumatra in the tutorial process.

Keywords: Independent learning readiness, tutorial value, attitude, cognitive

INTRODUCTION

The PBL learning method is currently very widely used in the world, especially in the Faculty of Medicine. PBL itself was introduced by Howard Barrows in 1969 at McMaster School of Medicine, Canada. PBL is a learning strategy that emphasizes learning to students or in other words student-

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E-ISSN: 2528-410X

centered *learning*, students are faced with a problem in real life, then from these problems students are stimulated to learn it based on the knowledge and experience they have had before (*prior knowledge*) so that from *prior knowledge* This will form new knowledge and experience.[1,2]

Tutorials are a manifestation of the implementation of the PBL program. Student independence is the principle of tutorial activities. Tutorial group discussions cause interaction between students and it is expected that the active learning process will occur. Active learning is a form of learning approach that is oriented to student activities. Learners are responsible for their own learning by engaging in the tutorial discussions.[3.4] The effectiveness of PBL can be influenced by three aspects, namely students, tutors, and scenarios. One of the goals of PBL itself leads to *Self Directed Learning* (SDL).[5]

Self Directed Learning (SDL) is the ability, traits and attitudes that students have to be active and independent in determining learning, finding out resources that are suitable for learning and being able to choose strategies so that knowledge obtained during the learning outcome process can be obtained.[6]

The success of the PBL method can be supported by *Self Directed Learning* (SDL). SDL is a learning process carried out on the initiative of individual students. SDL is very important for medical students to master so that students better understand what is needed for themselves. Based on this, a medical student must have the readiness to carry out the learning process independently Based on a study that assessed the relationship between independent learning readiness and block scores in FK UMSU students, it was found that there was no relationship between independent learning readiness and first block scores in FK UMSU students in the 2018/2019 academic year.[10] This is because students who have the readiness to study independently but the grades they get are relatively low. Meanwhile, previous research examining the relationship between SDLR and tutorials has not existed. This is the basis for the author to examine this problem how the relationship between independent learning as a PBL product and the value of tutorials.

METHOD

This study uses an analytical descriptive research method with a cross-sectional approach with the aim of determining the relationship between independent learning readiness and tutorial value learning outcomes in the *Respiration* Block consisting of *attitude values* and cognitive values in FK UMSU students for the 2021 academic year. The population of this study is 274 students of the Faculty of Medicine, University of Muhammadiyah North Sumatra, class of 274 people. In this study, it was determined that the number of samples was added by 10% to avoid a shortage of samples in the event of a drop out during the research, so that the total sample was 83 people. The determination of the sample in this study was based on inclusion criteria: Students who took *the 2021 class of respiration* block, students who participated in tutorial activities had at least 75% attendance, and students who were not willing to participate in the research. Exclusion criteria: Students who do not fill out the questionnaire completely.

The analysis in this study is presented in the form of bivariate analysis. Bivariate analysis is an analysis used to determine the relationship between bound variables and

E-ISSN: 2528-410X

independent variables. This analysis was carried out using statistical tests. The statistical test used in this study is the gamma test because both variables are ordinal categorical variables.

RESULT

Table 1. Frequency Distribution of Respondents by Gender

Gender	N	%
Man	25	30,1
Perempuan	58	69,9
Total	**83**	**100,0**

Based on the table above, it shows that the research respondents as many as 83 people are dominated by the female gender, namely 58 people (69.9%), this can be explained that UMSU Faculty of Medicine students are dominated by women.

Table 2. Frequency Distribution of Self-Study Readiness Level

Readiness Level for Independent Learning	N	%
Hight	60	72,3
Moderate	10	12,0
Low	13	15,7
Total	**83**	**100,0**

Based on the table above, it shows that the scores obtained by students are divided into 3 classes with relatively similar value ranges, it is known that students' readiness for independent learning is dominated by high (score >126), this is absolutely obtained based on the questionnaire filled out by the respondents.

Table 3. Attitude Frequency Distribution

Nilai *Attitude*	N	%
Very Satisfying	63	75,9
Satisfactory	13	15,7
Quite Satisfying	5	6,0
Less	2	2,4
Total	**83**	**100,0**

Based on the attitude value data above, the most dominant score was very satisfactory as many as 63 people (75.9%) with a score range of 85 – 100. It can be explained that *the attitude* value is obtained from the presence of students in undergoing block tutorial activities coupled with their participation in learning such as giving responses and knowledge ideas.

Table 4. Frequency distribution of tutorial values

Tutorial Value	N	%
Very Satisfying	3	3,6
Satisfactory	19	22,9
Quite Satisfying	46	55,4
Less	15	18,1
Total	**83**	**100,0**

Based on the table above, it is known that of the 83 respondents who were researched, cognitive values in the implementation of the respiration block were found to be dominated by unsatisfactory scores as many as 45 people (55.4%) with a range of 55 – 69.

Table 5. Results of the Relationship Test Readiness for Independent Learning with *Attitude Values*

		Attitude Value					
		Very Satisfying	Satisfactory	Quite Satisfying	Less	Total	*P*
Readiness for Independent Learning	Hight	48	6	4	2	60	0,209
	Moderate	8	2	0	0	10	
	Low	7	5	1	0	13	

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E-ISSN: 2528-410X

The results of table 5 show that Approximate Significance = 0.209 (p> 0.05), this result can be interpreted that the readiness of independent learning does not have a relationship with the attitude values of the students of the Faculty of Medicine.

Table 6. Results of the Relationship Test Readiness for Independent Learning with Tutorial Scores

		Tutorial Score					
		Very Satisfying	Satisfactory	Quite Satisfying	Less	Total	*P*
Readiness for Independent Learning	Hight	2	16	30	12	60	0,645
	Moderate	1	1	7	1	10	
	Low	0	2	9	2	13	

The results of table 6 show that Approximate Significance = 0.645 (p> 0.05), this result can be interpreted that the readiness of independent learning does not have a relationship with the cognitive value of students of the Faculty of Medicine.

DISCUSSION

The results of the study found that 83 research respondents were dominated by women, namely 58 people (69.9%). This can be explained that the students of the Faculty of Medicine UMSU are dominated by women.

The most dominant attitude score was very satisfactory as many as 63 people (75.9%) with a score range of 85 – 100. Attitude values are obtained from discipline, activeness in discussion, politeness and manners, honesty and responsibility. The relationship between independent learning readiness and *attitude values* shows that P = 0.209 (α > 0.05), this result can be interpreted that independent learning readiness does not have a relationship with the attitude value of Faculty of Medicine students.

Learning independence certainly refers to the ability of students to maximize their thinking and knowledge in solving existing cases. Independence will be reflected based on the attitude of students in explaining learning. *Attitude* is closely related to students' motivation and feelings in carrying out learning.[25]

Learning independence is influenced by several factors, namely factors that are present within itself (endogenous factors) and factors that are found outside of themselves (exogenous factors). Endogenous (internal) factors are all influences that come from within oneself, such as the state of the offspring and the constitution of one's body since birth with all the equipment attached to it. Everything that is carried from birth is the basic provision for the growth and development of the individual. Various basic qualities of father and mother may be found in a person, such as talent, intellectual potential and potential for physical growth.[25] Exogenous (external) factors are all circumstances or influences that come from outside oneself, often also called environmental factors. The living environment that individuals face greatly affects the development of a person's personality, both in negative and positive aspects. A good family and community environment, especially in the field of values and life habits, will form personality, including in terms of independence.[25]

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Previous research has shown that these feelings are always accompanied by behaviors that are reflected in an individual, including the ability to learn independently. Learning independence requires great responsibility on students so they try to carry out various activities to achieve learning goals. Learning independence is a form of learning that has the main responsibility for planning, implementing, and evaluating its business. In addition to responsibility, high motivation from a student is very necessary in independent learning. Motivation that will stimulate from within the very sensitive self that exists in students, so that if this is realized in the learning process, especially in higher education institutions, namely universities, it will trigger the emergence of very high learning motivation and supported by very structured, directed, polite, and effective learning behavior, then students' learning readiness will increase continuously.[26]

Based on the theory, it can be related to the author's research, namely that there is no relationship between the readiness of independent learning and *attitudes* related to the motivation of the students themselves. Attitude always has a certain relationship with the object, in other words, the attitude is formed, studied or changed always with respect to a certain object that can be clearly formulated. Attitudes have motivational and emotional aspects, natural traits that distinguish the attitude of competence or knowledge that people have.[27]

There are two factors that influence attitudes,[28] i.e. individual internal factors and individual external factors. Individual internal factors consist of emotions in the individual, intelligence, personality and self-concept. Emotions are basically a reflection of attitudes in responding to something. Intelligence concerns how a person acts/behaves in the face of problems, either based on experience or circumstances that are happening.[29] A person's personality will reflect how to behave, between an open and closed personality has a different concept. The self-concept that exists in a person certainly builds attitudes that will be seen, the good/high and low self-concept will determine a person's attitude and actions.
Furthermore, external factors that affect attitudes are educational institutions or institutions or religious, cultural, environmental, mass media, other people who are considered important. Educational institutions or institutions help determine a person's attitude because the institution has its own norms that limit a person's actions. Culture as a reflection of daily life certainly fills the formation of attitudes. The environment takes a very vital role in the formation of individual attitudes. The mass media provides information to individuals which indirectly becomes a suggestion that is able to shape a person's attitude. Other people around us are certainly related to our behavior and conversation, this will certainly shape individual attitudes in terms of good and bad. The problems that a person is facing will determine how the attitude he displays such as aggressive, closed or quiet.[27]

Students who have independence in their learning have a responsibility in regulating and disciplining themselves and in developing the ability to learn on their own volition. These attitudes need to be possessed by students because they are characteristics of the maturity of educated people. Readiness for independent learning (SDLR) is very important in medical education to provide provisions to become a *long life learner*. Medical education graduates must have the ability in accordance with the Indonesian

E-ISSN: 2528-410X

Doctor Competency Standards (SKDI) approved by the Indonesian Medical Council (KKI). One of the competencies that a doctor must possess in Indonesia is self-awareness and self-development competencies.[30]

The results of research with high learning readiness are in line with the theory that a person who succeeds in the SDLR learning process is someone who has initiative, independence, and persistence in learning. Furthermore, they are responsible for their own learning, view problems as a challenge, have a sense of curiosity, and discipline. They are able to combine confidence and a strong desire to learn, organize time, manage the pace of learning, have a plan, enjoy learning, and are goal-oriented.[30]

The implication of these findings is the importance of paying attention *to attitude* in the implementation of tutorial learning. *Attitude* in learning is very important, because it is very related to how students' attitudes, motivation and responsibilities in learning require self-intuition to solve problems.

The tutorial cognitive value of 83 respondents studied showed that 45 people (55.4%) were dominated by satisfactory scores with a score range of 55 – 69. The results of the study on the relationship between independent learning readiness and tutorial cognitive value were found that p = 0.645 ($\alpha > 0.05$). Several factors that affect students' cognitive abilities such as learning motivation, independence, environment, family, university environment and academic guidance. The emphasis of PBL learning refers to the ability of students to understand problems or solve cases.[31]

Cognitive learning is a quick assessment based on the implementation of short learning, therefore it is very possible that students still do not master the material discussed, it takes time to review to master. The concept of cognitive assessment in tutorial learning refers to a brief understanding during the implementation of learning, but that knowledge will be inherent if it is repeated which of course is done outside of learning.[32]

To be able to give the correct answer, of course, students must have knowledge by reading or studying the material taught by the lecturer, besides that the readiness of the student's physical, mental and emotional condition can also affect how the student is ready to accept the lessons taught by the lecturer. A person can only learn about something when he is ready to learn something. Ready to learn means that when opening learning, students are ready to receive lessons at that time. With conditions like this, learning is easy to continue according to the planning that has been determined by the lecturer.[33]

The main advantage of this study is the approach that examines learning activities in the Faculty of Medicine. In addition, the use of precise statistical analysis, such as gamma analysis, explores in detail the proximity between independent variables and bound variables in looking at their relationships.

This study has limitations in generalizing results because it was conducted only on students from one faculty or even a small part of the total students. This may limit the applicability of research findings to a wider population. Second, although this study measures students' readiness for independent learning, *attitude* , and cognition, there are many factors that should discuss independent learning readiness such as responsibility and motivation.

E-ISSN: 2528-410X

CONCLUSION

Based on the results of the study, the following conclusions were obtained:

1. The attitude value of tutorial learning shows that the most dominant is very satisfactory.
2. The cognitive value in the implementation of tutorial learning is known to be dominated quite satisfactory.
3. Readiness for independent learning has no relationship with the attitude values *of the Faculty of Medicine students' attitudes.*
4. Readiness for independent learning has no relationship with the tutorial value of Faculty of Medicine students.

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