

Self Regulated Learning and Limiting Belief Academic for College Student

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Abstract—Limiting belief of college student for finishing task from campus can affect the decline in college student academic of achievement. The decline in college student academic achievement will make the level of limiting belief even greater, which will interfere with the learning process carried out by the lecturer. So there needs to be self-control in learning that supports the achievement of learning goals by managing the time and control of the learning system known as SRL (Self-Regulated Learning). The study aims to determine the relationship of SRL (Self-Regulated Learning) with limiting academic beliefs in college student. The research subjects taken were college students for Organization and Architecture computer courses at the Faculty of Engineering, Universitas Negeri Padang (N = 31). The college student is in the first year in the second semester. The results showed a negative relationship and very significant between SRL (Self-Regulated Learning) with college students' academic limiting beliefs, with a correlation coefficient (r) = -0.73 and (P) = 0,000.

Keywords—*self regulated learning; limiting belief academic; organization; architecture computer*

I. INTRODUCTION

The Informatics Engineering Education Study Program is one of the study programs in the Department of Electronics at the Faculty of Engineering, Universitas Negeri Padang to be able to develop the abilities of individuals in terms of cognitive, affective and psychomotor through the learning process on campus. It is expected to be able to produce young generations who are intelligent, creative, deft and responsible and are expected to be excellent teaching candidates. Piaget explained, youth is a period of development in cognitive aspects that have reached a formal level of operation, so that college student activity is the result of logical thinking [1]. In addition, the affective and moral aspects of collegestudents have also developed which are expected to eliminate limiting beliefs of college students in completing their tasks. This opinion illustrates that college student are considered capable of being responsible for completing various tasks including academic assignments. But based on reality there are still college students who experience problems in finishing task academic.

The phenomenon that occurs in college student today is: some of the college student behavior spends a lot of time just

on entertainment matters, not spends a lot of time for academic matters. This can be seen from the habit of staying up late, walking in malls or plazas, watching television for hours, addicted to online games and delaying work time. When a college student cannot use his time well, he often takes time to do activities that are not useful so that time is wasted. Abandoned tasks and to finishing task not optimal tasks have the potential to result in failure or obstruction of college student's success. Individual failure or individual success is not depends on from intelligence alone but the limited self-confidence of college students in completing academic assignments.

The research conducted by Lilis Andriani with the title "The Relationship of Self-Confidence with Student Learning Achievement in Geography Subjects aims to see how much the relationship of confidence with student learning achievement in the geography subject of class X in Gorontalo 4 State High School. The research data obtained the regression equation between self-confidence and student achievement, the relationship between the two variables is also strengthened by the value of the correlation coefficient between the two rxy variables of 0.6025. The results of the calculation of the correlation coefficient of 0.6025 indicates that the relationship between self-confidence and student achievement is a positive and strong relationship. The strong relationship between confidence and student achievement is 36.3%. This gives an illustration that there are 36.3% variations in Student Learning Achievement which can be explained by students' self-confidence, while 63.7% is determined by other factors. Self-confidence is very influential and determines the success of students in their lives. Self-confidence greatly influences success in learning and working, in a family environment, and social relationships with others.

Limiting belief can occur in every individual with various statuses. Therefore, there are research emerged in the last few years related to limiting belief. At present, limiting belief is a common problem that occurs in the academic world and something that threatens the person. Limiting Belief should be watched out especially if it is for students with superior potential, because students who are potentially intellectual or gifted academically are expected to be able to carry out academic activities more productively and with maximum results.

Some literature describes aspects that affect the occurrence of limiting belief. This is supported by the results of interviews of researchers in college students who take courses in computer architecture and organization in the Department of Electronics, Faculty of Engineering, Padang State University. College students stated that limiting belief is present in college students so that they postpone starting work, learning lessons and not enough time to evaluate the work before collecting assignments. In addition, information was obtained from college students who stated that they were delaying doing other activities besides campus activities because they were bored with existing learning activities.

Individuals have the ability to regulate themselves in their lives and are responsible for their behavior to achieve the goals that have been targeted, which can be applied in learning. According to Alsa, cognitive social learning theory has explained the ideal concept of self-regulation based learning with the scope of self-development mechanisms and self-monitoring of thoughts, feelings, and behaviors with the aim of achieving goals that can help manage time and control themselves in the learning system, which in psychology manifests itself in the term self-regulated learning (SRL) or also called independent learning [2]. According to Santrock students who have SRL show the characteristics of arranging learning goals to develop knowledge and increase motivation, can control emotions so as not to interfere with learning activities, monitor periodically the progress of learning targets, evaluate them and make adaptations needed to support achievement. The researchers also found that there was a positive and strong correlation between SRL and academic achievement in students [1]. As well as SRL is a very good strategy to improve learning and monitoring their achievements.

The linkages found in the academic limiting beliefs of SRL and researchers appear to suggest that there will be a SRL relationship with limiting belief based on the study of literature that has not been found that conducts the research related to college student subjects. So the researchers are interested in raising the title of the relationship of SRL with limiting academic beliefs in college students who take courses in computer organizations and architecture in the Department of Electronics, Faculty of Engineering, Universitas Negeri Padang.

A. Limiting Belief

Confidence is a belief that someone has that he is able to behave as needed to get the results as expected. Individuals who are highly confident are generally easier to be personally involved with other individuals and will be more successful in interpersonal relationships. Lauster added the definition of self-confidence as one's own beliefs and abilities so that they were not easily influenced by others [3]. The aspects of self-confidence contained in Lauster's theory are:

- Love Yourself
- Self understanding
- Clear life goals

- Think positively

B. Self Regulated Learning

Pintrict and Groot provide the term self-regulated in learning with the term SRL [4]. The concept of self-regulation was first put forward by Bandura in the setting of social learning theory. According to Zimmerman, self-regulation in the learning process is not a mental ability or a skill in academics, but it manages the individual's own learning process through setting and achieving goals by referring to metacognition and active behavior in independent learning [5]. Self-regulated learning consists of metacognition, motivation, and planned actions that are cyclically adapted to achieve personal goals [6]. Where metacognition is awareness and knowledge of knowledge thinking, which refers to students' awareness of what is known and how to achieve individual goals. In addition, motivation in the SRL context is self-motivation which is a motivation derived from oneself to its capacity to learn. Behavioral aspects related to individual efforts to organize themselves, select, and utilize and create an environment that supports learning activities such as listening to lessons from lecturers, recording, concentrating, and others. But Thoresen and Mahoney explained that SRL is influenced by several things, namely personal factors (person), behavior, and environment [6].

C. Hypothesis

There is a negative relationship of self-regulated learning with academic limiting beliefs in college students who take Computer Science and Architecture courses.

II. RESEARCH METHODS

The population in this study were college students in the second year who took courses in organization and computer architecture in the Informatics Engineering Education Study Program of the Faculty of Engineering UNP.

A. Method of Collecting Data

Data collection methods in this study used a psychological scale using a Likert scale type instrument. In a Likert scale there are statements that consist of two types, namely favorable statements (supporting or favoring the object of attitude) and unfavorable (not supporting the object of attitude). There are two psychological scales used in this study, namely the SRL scale and the limiting scale of academic beliefs.

B. Data Analysis Method

Data analysis using statistical calculations, carried out using the SPSS program. The results of the statistical test are then interpreted by looking at the significance level indicated by the index error that might occur, which is usually called probable error (p). Value (p) ranges from 0.05 to 0.01. If the results of statistical tests obtained p value > 0.05, the results of the research obtained were not significant, while the results of the study can be said to be significant if the value of $p \leq 0.05$.

III. RESEARCH RESULT

The correlation coefficient between SRL and limiting belief is 0.37 with a significance of 0,000 ($p < 0.05$). A significance value of less than 0.05 indicates that H_0 is rejected and H_1 is accepted. This means that there is a positive relationship between SRL and limiting academic beliefs.

The results of the study found that 14 college students (45.8%) had high self-regulated learning, meaning that individuals had a plan to achieve their goals and manage learning time well, organize and code information strategically, maintain motivation, and manage the environment to support their learning activities. While 17 college students (54.2%) who have low self-regulated learning, which illustrates that college students do not have planning and time management in learning, do not have a learning strategy, low motivation, and less use of available resources. The following table 1 is a summary of the results of the data description of the variables of self-regulated learning:

TABLE I. DISTRIBUTION T-SCORE SELF-REGULATED LEARNING

Category	Interval	Frequency	Percentage
Tinggi	$t\text{-score} > 50$	14	45,8%
Rendah	$t\text{-score} < 50$	17	54,2%
Total		31	100%

Furthermore, it can be seen also 16 students (52.1%) who have high academic limiting beliefs, meaning individuals delay procrastinating tasks, late working on assignments, not in accordance with predetermined deadlines, and prioritizing other activities when completing tasks. While the remaining 15 students (47.9%) classified as low academic limiting belief means that the individual is quick to do the task, on time to do the task, between the plan and actualization accordingly, and focus on the task to be completed. Complete data description as in table 2 below.

TABLE II. DISTRIBUTION T-SCORE LIMITING BELIEF ACADEMIC

Category	Interval	Frequency	Percentage
Hing	$t\text{-score} > 50$	16	52,1%
Low	$t\text{-score} < 50$	15	47,9%
Total		31	100%

Another description of this study by combining the two variables can be obtained as follows, namely found 5 college students (10.4%) who have low SRL and have low academic limiting beliefs, 21 college students (43.8%) who have SRL low and has high academic limiting beliefs, there are 18 college students (37.5%) who have high SRL and have low academic limiting beliefs, and there are four college students (8.3%) who have high SRL and have limiting academic beliefs high. In general it can be seen that not all research subjects with high SRL college students have low academic limiting beliefs or low SRL followed by high limiting academic beliefs. The results of SRL variable data distribution with academic limiting belief variables can be categorized as follows:

TABLE III. CROSSTABULASI SELF-REGULATED LEARNING WITH LIMITING BELIEF ACADEMIC

		Limiting Belief Akademik		Total	
		Low	High		
SRL	Low	Count	4	13	17
	% of Total	10,4%	43,8%	54,2%	
High	Count	12	2	14	
	% of Total	37,5%	8,3%	45,8%	
Total		Count	16	15	31
		% of Total	47,9%	52,1%	100%

Based on the results of data analysis in this study, obtained a correlation coefficient (r) of -0.73 with an error value or probability error (p) of 0.000 at the level of 1% which means there is a relationship with a negative direction and very significant between SRL and limiting academic belief in college students. That is, students who have a high SRL, then limiting academic beliefs is low. Conversely, if students with low SRL are followed by high limiting academic beliefs.

College student who has a high self-regulated learning tends not to experience limiting academic beliefs. This is because students who have high self-regulated learning will direct themselves to be able to independently regulate some things that direct their thoughts, motivations and behavior towards achieving goals. The college student has a directed plan to determine the time needed for each stage of the activity to be carried out. With the allocation of time on learning activities that support the achievement of goals, college students indirectly have a structured time pattern that becomes an effective schedule for learning activities that lead to the achievement of the target. So that college students do not experience academic limiting beliefs in the form of delays in doing school assignments, delays in starting or completing their assignments and as soon as possible to work on existing campus tasks in accordance with the learning schedule that has been made without wasting time.

To carry out planned activities, college students also have individual motivation, believe in their ability to encourage behavior, with great effort to achieve better results in learning and perseverance in completing an academic task even though the task is difficult to solve. College Students who have the confidence to be able to defend themselves and bring out behaviors that support achieving better learning goals are college students who have high self-regulated learning, who will avoid negative beliefs about their inability to do their tasks, ignore behaviors that are not fun, the breakdown of concentration when doing academic tasks or just doing just a little on campus tasks that are considered not easy.

Self-regulated learning is self-development and self-monitoring of thoughts, feelings and behaviors with the aim of achieving a goal, which is related to academic goals or socio-emotional goals [1]. Self-regulated learning is an attitude that maintains self quality and tenacity that is contrary to academic limiting belief that often delays work, delays in doing assignments, disagrees with performance and performs more enjoyable activities. This is in accordance with Wolters research which shows that the limiting behavior of academic belief has a relationship with SRL [7]. If college students have high SRL and low limiting academic beliefs, college students

have the ability to independently regulate activities planning, monitoring and evaluating their activities, accompanied by strong motivation to be able to display a series of productive and effective actions aimed at achieving targets. Vice versa, if the academic limiting belief is high and SRL is low, then the four traits will appear, namely: when a person has the characteristics of delaying to start or finish work on the task at hand, delays in working on tasks, time gap between plan and performance actual and do other activities that are more fun than doing tasks that must be done [8].

From the results of the variable determinant coefficient (R^2) between SRL and limiting academic beliefs is 0.546. This shows the effective contribution of SRL by limiting academic belief by 54.6%, meaning that by having a high SRL, limiting college students academic beliefs is low or vice versa. While the remaining 45.4% is influenced by other factors that are not examined, such as individual physical conditions, low supervision, parenting, perfectionism and low internal motivation [9].

IV. CONCLUSION AND IMPLICATION

A. Conclusion

Based on the results of the study, it can be concluded that there is a very significant relationship between SRL with limiting academic beliefs in college students with a correlation (r) of -0.73 and the error probability value (p) of $0.000 < 0.01$. This means that students with low SRL will be followed by high academic limiting beliefs, and vice versa college students with high SRL will be followed by low limiting academic beliefs. The effective contribution of SRL to limiting belief in college students in doing school work is 54.6%.

B. Implication

The results of this study also have implications for the application of research results in daily life as follows:

- The role of educational institutions in helping college students to develop independent learning skills in the learning process by doing monitoring of college students and assisting in providing strategy

recommendations that can be done by students in achieving learning goals.

- For educational institutions, the results of this research can be contributed by the thinking of psychology to design various methods of learning that lead to the concept of self-regulation in learning in college students.
- College students are able to improve the ability of self-regulation in learning independently by setting learning goals to be achieved and strategies that can help in achieving it related to the regulation of learning time, maintaining motivation for learning and behavior that supports success in achieving the targets set.

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