



The Relationship Between Self Efficacy, Learning Styles to the Learning Activeness of Prospective Teachers

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ABSTRAK

Keaktifan belajar merupakan unsur dasar yang harus dipenuhi untuk menunjang keberhasilan proses pembelajaran. Namun Keaktifan belajar mahasiswa belum muncul dan tingkat self efficacy mahasiswa rendah serta gaya belajar yang variatif. Penelitian ini bertujuan untuk menganalisis hubungan self-efficacy dan gaya belajar terhadap keaktifan belajar mahasiswa. Metode penelitian yang digunakan adalah kuantitatif deskriptif dengan pendekatan survey. Subjek dalam penelitian ini adalah mahasiswa IPS kelas 4A dan 4B yang berjumlah 105 mahasiswa. Teknik pengumpulan data yang digunakan berupa kuisioner. Sedangkan teknik analisis data menggunakan uji reliabilitas uji normalitas, uji T, uji F dan uji hipotesis. Hasil penelitian menunjukkan bahwa ada hubungan positif antar variabel dilihat dari output pada uji T dan uji F nilai signifikansi (2-tailed) $0,00 < 0,05$ maka dapat disimpulkan bahwa ada hubungan positif antara self efficacy dan gaya belajar pada keaktifan belajar mahasiswa. Oleh karena itu, disarankan agar dosen atau guru memperhatikan setiap karakteristik setiap siswa, tidak hanya fokus pada materi saja, namun juga keaktifan belajar setiap siswa, sehingga siswa dapat berpartisipasi aktif dalam pembelajaran dan membangun semangat serta kepercayaan diri dalam belajar. Selain itu, perlu adanya ruang menunjang pembelajaran yang menunjang gaya belajar setiap siswa, terutama ketika belajar di kelas.

ABSTRACT

Active learning is a basic element that must be fulfilled to support the success of the learning process. However, student learning activeness has not emerged and the level of student self-efficacy is low and learning styles are varied. This study aims to analyze the relationship between self-efficacy and learning styles on student learning activeness. The research method used is descriptive quantitative with a survey approach. The subjects in this study were social studies students in grades 4A and 4B, totaling 105 students. The data collection technique used is a questionnaire. While the data analysis technique uses the reliability test for normality test, T test, F test and hypothesis test. The results showed that there was a positive relationship between variables seen from the output on the T test and F test with a significance value of (2-tailed) $0.00 < 0.05$, so it can be concluded that there is a positive relationship between self-efficacy and learning style in student learning activity. Therefore, it is recommended that lecturers or teachers pay attention to each characteristic of each student, not only focusing on the material, but also on the active learning of each student, so that students can actively participate in learning and build enthusiasm and confidence in learning. In addition, it is necessary to have a learning support room that supports the learning style of each student, especially when studying in class.

1. INTRODUCTION

Education is an important part of the progress of a country, the goal is to add insight. And education has a dynamic position and is moving into the future, which means that education is moving in real terms in dealing with the quality problems of every student at the university which is reflected in their active learning (Şekerci, 2020; Supriyanto et al., 2020). Learning is a change in behavior that occurs permanently due to strong practice. Measurement of self-learning is measured through the existence of a behavior. The results of the learning process are interpreted as an action that can be observed. The definition of learning is not only behavior but also the process before the occurrence of the behavior itself or before the occurrence of a behavior change process (Lampropoulos et al., 2019; Marini, 2017). These changes include skills, habits, attitudes and behavior as well as understanding. However, each individual has different

abilities in capturing information, resulting in different learning outputs for each human being. The learning process at university is certainly different from that at junior high/high school. A student is required to be able to learn and analyze existing problems. One of the characteristics of effective learning is if learning can respond to the needs of its students (Santosa, 2017; Simbolon & Koeswanti, 2020). To achieve these learning goals, a student must have self-efficacy and learning style.

The theory of self-efficacy is a branch of social cognitive theory (known as a branch of social learning theory) put forward by Albert Bandura where each student has confidence in the ability to control his own functioning in an environment known as self-efficacy (Hatlevik et al., 2018; Shamdas, 2023). Based on research of previous study states that each student has a different level of self-efficacy and has a different level of motivation in completing a task or project (Enisa & Karairmak, 2017; Haryanto & Arty, 2019). As well as the goal of achieving educators, namely for student learning experiences. Self-efficacy is confidence in one's own ability to complete tasks, achieve goals and solve problems they face. An understanding of how student self-efficacy and satisfaction is controlled and there are differences between groups of individuals. The role of students in active learning such as actively expressing opinions on material presented by lecturers and participating in groups in doing assignments and interacting in the learning process and being able to provide feedback on their understanding (Gorghiu et al., 2015; Rahmani, 2020).

Some opinions conclude that self-efficacy is a belief that each individual student has in the learning process, a student has a high level of self-efficacy, then the stress/load is low and vice versa if the student's self-efficacy level is high, the stress low because it can manage itself in the learning process and complete the tasks it has (Mazzetti et al., 2020; Ramsin & Mayall, 2019). The growth of self-efficacy is centered on parents and is influenced by the surrounding environment and peers. The dimension of self-efficacy has three dimensions, namely: level, generality, and strength. Self-efficacy indicators are: 1) confidence in being able to carry out tasks. Someone believes that they can carry out certain tasks and determine their tasks, 2) believes they can motivate themselves in taking the necessary actions in completing tasks, 3) believes that they can try, diligently complete their tasks using the methods they have, 4) believe in the ability to survive in the face of obstacles and difficulties. Every student has a way of solving each problem (Ozkal, 2019; Tan et al., 2020).

Learning style according to Porter and Hernacki in (Papilaya & Huliselan, 2016) is a combination of someone in capturing and processing information. In general, a person's learning style is divided into three groups, namely, visual learners learning styles, auditory learners and kinesthetic learners learning styles (Jagantara et al., 2014; Ozaydin Ozkara & Ibili, 2021). Visual learning style is a learning style by looking at observing and looking at an object. Visual learning style lies in the sense of sight. The eye is the most sensitive human sensory organ in capturing stimuli in learning. Learners' auditory learning style is a learning style that emphasizes the sense of hearing or by hearing (Chandra, 2023; Sheromova et al., 2020). Individuals in this learning style learn more easily by moving or taking action. In general, a person's learning style is divided into three groups, namely, visual learners learning styles, auditory learners and kinesthetic learners learning styles. Visual learning style is a learning style by looking at observing and looking at an object. Visual learning style lies in the sense of sight. The eye is the most sensitive human sensory organ in capturing stimuli in learning. The auditory learning style of learners is a learning style that emphasizes the sense of hearing or by listening. Characteristics of individuals with an auditory learning style of learners where in doing something they tend to talk or communicate a lot, such as listening to music and the like (Espericueta-Medina et al., 2020; Taufik & Harjanty, 2021). Kinesthetic learning style is a learning style using how to move, work and touch or physical touch. Where individuals prefer the sense of taste and movement in the form of physical touch. Individuals in this learning style learn more easily by movement or taking action.

Seeing the urgency regarding the learning process of students in class, self-efficacy and student learning styles can increase student learning activeness in learning. However, the results of observations made at Yogyakarta State University on February 8 and February 13 2023 have not shown good results. The average student learning activity is still low. Through observation activities it is known that learning in student classes is still passive. Students do not have awareness in learning. The lecturer is only limited to conveying the material. Lecturers have not fully involved students in the learning process. The lack of interaction between students results in students being engrossed in their own activities.

Active learning is becoming popular because of technological developments that facilitate student involvement to be more active, but in fact, uncertain changes often occur for each individual. Apart from practical reasons, there are theoretical considerations and empirical evidence in supporting active learning. The goal is to involve students in learning activities (Lampropoulos et al., 2019; MZ & Syafi'i, 2021). Student activeness in learning creates high interaction between one student and another, student activeness in the learning process to build their own knowledge. They actively build their knowledge of what they face in the learning process that is carried out.

Against the background of the problem of lack of student participation, motivation is needed and determines learning styles in learning activities. Self-efficacy in students fosters motivation from within so that students have awareness and confidence in learning activities. Students are confident in completing assignments. Optimistic in learning. Meanwhile, learning style is the key to increasing student motivation and learning potential in doing assignments in class or in social society. Based on the description above, the researcher wants to examine research related to this matter more deeply. So the researcher intends to conduct research with aims to analyze the relationship between self-efficacy and learning styles on student learning activeness.

2. METHOD

This research is a quantitative research using a survey approach. Survey is a research approach that is generally used for extensive and large data collection. The survey was chosen because it shortens the time in research and obtains data (Oducado, 2021; Vagias, 2006). The population in this study were fourth semester students in social studies basic education courses. The selection of samples in this study used a random sampling technique in which the samples were randomly distributed. The class chosen was social studies class 4A and 4B students, totaling 105 students. Data collection techniques were used to obtain data through observation and questionnaires. Questionnaire objectives are used to determine self-efficacy and student learning styles. While observation is used to see the implementation of student learning activeness in class learning. The data analysis technique used is to test the validity of the instrument, reliability, normality test and hypothesis testing using the T test and F test on SPSS version 26 for windows using a significance level of 5% or 0.005. The instrument in this study is a questionnaire along with indicators used in testing self-efficacy variables, namely 1) Magnitude ; 2) strength ; and 3) generalities, as show in Table 1. While the learning style indicators are 1) visual 2) auditory 3) kinesthetic, as show in Table 2.

Table 1. Self-Efficacy Questionnaire Lattice

| Variables | Indicators |
|------------|--|
| Magnitude | Sure you can do the job Doing tasks according to ability Never give up in the face of difficulties |
| Strength | Work hard and maximum effort Keep the spirit in difficult conditions Optimistic in learning |
| Generality | Confident can do the task in time Doing assignments in difficult fields |

Table 2. The learning Style Questionnaire Instrument Grid

| Variable | Indicator |
|-----------------------------|---|
| Visual learning style | Learn in a visual way Not distracted by noise Difficult to accept verbal instructions , learn in an uncluttered environment. |
| Auditory learning style | Learns by listening Good at verbal activities Sensitive to music Easily distracted by noise Weak at visual activities. |
| Kinesthetic learning styles | Learns with physical activity Sensitive to expressions and body language Physically oriented and moves a lot Likes to try and not tidy Weak in verbal activity. |

3. RESULT AND DISCUSSION

Results

To determine whether or not there is a relationship regarding self-efficacy and student learning styles on student learning activeness, we must go through some data analysis. the tests carried out were in the form of hypothesis testing and F and T tests. Reliability tests were used to test whether the instruments used were valid or not. To facilitate data testing, the SPSS application is used to test the reliability of the data. Reliability results in research. The reliability test that has been carried out obtained valid data of 40 questionnaire questions and 2 invalid data because the significance value is below <0.005. Invalid data on data number 21 and 22. The reliability test is continued which is used to test the measurement results using the same object. The number of questionnaires in this study consisted of 42 item numbers. The next step is to carry out a normality test which has the aim of being able to ensure that the data collected in a normally

distributed population is a normality test. In this case it is important to do data analysis that will be used followed by evaluation using the SPSS program, and student population data so that the calculation results will be obtained in Table 3.

Table 3. Normality Test Result

| Statistics | | Unstandardized Residuals |
|------------------------|--------------------------|--------------------------|
| N | | 81 |
| Normal Parameters | Means | 0.000 |
| | std. Deviation | 4.129 |
| | Most Extreme Differences | |
| | absolute | 0.550 |
| | Positive | 0.550 |
| | Negative | -0.045 |
| Test Statistics | | 0.550 |
| asymp. Sig. (2-tailed) | | 0.200 |

The results of the data in Table 3 can be concluded that the sig value is greater than (> 0.05) so the data is normally distributed because the Kolmogorov-Smimov normality test which has been described forms the basis for the assessment. The next step is to test the serial correlation to test the relationship between variables. The serial correlation results are shown in Table 4.

Table 4. Serial Correlation Results.

| Variable/Parameters | | Self Efficacy | Learning Style | Learning Activeness |
|---------------------|---------------------|---------------|----------------|---------------------|
| Self Efficacy | Pearson Correlation | 1 | 0.486 ** | 0.727 ** |
| | Sig. (2-tailed) | | 0.000 | 0.000 |
| | N | 81 | 81 | 81 |
| Learning Style | Pearson Correlation | 0.486 ** | 1 | 0.578 ** |
| | Sig. (2-tailed) | 0.000 | | 0.000 |
| | N | 81 | 81 | 81 |
| Learning Activeness | Pearson Correlation | 0.727 ** | 0.578 ** | 1 |
| | Sig. (2-tailed) | 0.000 | 0.000 | |
| | N | 81 | 81 | 81 |

** . Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4, it can be seen that the results of the correlation coefficient between self-efficacy variables (X₁) with active learning (Y) is 0.00 and has a very high relationship which means there is a significant relationship 0.00 > 0.05. Learning style (X₂) and learning activeness (y) is 0.00 including having a relationship very high 0.00 > 0.05 means there is a significant relationship. The next step is to conduct a t-test. The t-test determines the effect of each independent variable on the dependent variable. The results of the t-test are shown in the t-test table show in Table 5.

Table 5. T Test Results

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|-------|----------------|-----------------------------|------------|---------------------------|-------|-------|-------------------------|-------|
| | | B | std. Error | Betas | | | tolerance | VIF |
| 1 | (Constant) | 7.550 | 4.911 | | 1.537 | 0.128 | | |
| | Self Efficacy | 0.632 | 0.089 | 0.583 | 7.071 | 0.000 | 0.764 | 1.309 |
| | Learning Style | 0.684 | 0.191 | 0.295 | 3.575 | 0.001 | 0.764 | 1.309 |

Furthermore, based on Table 5 show the results of the T test, a sig self-efficacy value of 0.00 was obtained and a sig learning style value of 0.00 with a significance level of 0.005 or 5%. That way, self-

efficacy and learning styles have a positive relationship. The next step is to carry out the F test. The F test looks at how the influence of all independent variables together on the dependent variable. The results of the F test are shown in [Table 6](#).

Table 6. F Test Result

| | Model | Sum of Squares | df | MeanSquare | F | Sig. |
|---|------------|----------------|----|------------|--------|-------|
| 1 | Regression | 2000.031 | 2 | 1000016 | 57.187 | 0.000 |
| | Residual | 1363.969 | 78 | 17.487 | | |
| | Total | 3364.000 | 80 | | | |

Based on [Table 6](#) show results of data processing that has been done as well as research and hypothesis testing, it can be explained, from the calculation of the data obtained sig = 0.00 between variable X_1 and variable Y then $0.00 > 0.05$, which means that the sig value is smaller than 0.005 so there is a significant relationship between self-efficacy (X_1) to active learning (y). Furthermore, in the calculation, the sig value = 0.01 is obtained between the variable X_2 and the variable Y, so $0.01 > 0.005$ so that there is a significant relationship between learning styles (X_2) and learning activity (y). Then the significance calculation is carried out through the F test formula, the calculated F value is 57.187 and when compared with F Table, a sig of 5% is obtained, then $F_{count} > F_{table}$ ($57.187 > 3.11$). This means that self-efficacy and learning styles have a positive or significant relationship to learning activity in students in grades 4A and 4B in education courses.

Discussion

Active learning is not always about mental activity. Students can be physically and verbally. Strategies in active learning teach students to think critically, therefore the types of activities designed are used to stimulate mentally and involve thinking in a contextual way. In the active learning strategy students can become strong thinkers in expressing their opinions ([Demirci & Akcaalan, 2020](#); [Pamungkas et al., 2020](#)). As well as being able to play a role in groups and have creative activities. The strength of active learning is supported by the personal involvement of students in discussions ([Blanco et al., 2020](#); [Tegeh & Pratiwi, 2019](#)). Active learning is the active impact of students in learning from students who are involved in the learning process.

The link between self-efficacy and student learning styles certainly has a strong relationship with active learning where in the learning process in class each student has their own way of solving their assignments and problems. Each student has a way to motivate themselves in achieving the things to be completed so that each student certainly has a different learning style. This is also reinforced by the results of research conducted by previous study ([Gümüş & Bellibaş, 2023](#)). Characteristics of educators who can provide motivation to students. The results of research conducted by other study also show that self-efficacy shapes students' beliefs and motivation ([Lumbantobing, 2020](#)).

Self-efficacy is a social cognitive theory put forward by Bandura known as social learning theory. Belief in one's ability to control one's activities and the environment is called self-efficacy. Self-efficacy determines the way people feel, think and motivate themselves and behave. To overcome problems and adapt to stressful situations, a teenager must believe in his own abilities, because this determines the actions taken and the results ([Corry & Stella, 2018](#); [Ozkal, 2019](#)). Student self-efficacy is clearly related to active problem-based learning, in the results research shows that self-efficacy and active learning are related in many ways. In good teaching and learning process activities from students and educators is the desired goal ([Juwita & Ilyas, 2021](#); [Star et al., 2014](#)). In self-efficacy, especially educators or lecturers have an important role in increasing student self-efficacy. Educator or lecturer self-efficacy is the belief that they can reach them and can help them complete learning assignments. In other studies, various studies have found that it is felt that it is easy to use something ([Akyol & Aktaş, 2018](#)). Self-efficacy has a significant impact on perceived benefits in use, therefore it can be said that there is a relationship between self-efficacy and attitude. This research shows that there is a strong relationship between attitude and self-efficacy in his research.

Every person born in this world is always different from the others. As well as body, behavior, traits, habits and many other types. No two people have the same physical form, behavior and characteristics, even if they are twins. In this study previous study compared and contrasted the effects of teacher-student double centered learning style (TSDCLS) and student-centered learning style (SCLS) on reading comprehension and others ([Imaduddin et al., 2019](#)). The importance of understanding learning styles in an adaptive learning environment is undeniably beneficial in understanding, apart from views in education that support

related to modeling learning styles. Learning styles are considered as a set of distinct behaviors within a concept definition. Learning styles qualify as cognitive, affective and psychological where behavior shows how students perceive and interact and respond to their learning environment (Riyanti & Rustiana, 2019; Santosa, 2017). Learning style is also a way that an individual can learn. People who use different learning styles even though they have a preferred learning style. In each learning activity, it is important to encourage students to be actively creative and increase creativity through various activities in the learning experience (Pamungkas et al., 2020; Weninger et al., 2020). Learning activities are activities given to students in teaching-learning situations.

The implications of this research will be able to add to the knowledge of lecturers or educators regarding the characteristics of each student related to self-efficacy, learning style. In class lectures, lecturers will find it easier to convey material and can increase student learning activity and can provide motivation for each student in dealing with the difficulties they encounter in the learning process (Budianto & Ngadiyono, 2016; Toharudin et al., 2019). This research still has many limitations, therefore, it is recommended that lecturers or teachers pay attention to each characteristic of each student, not only focusing on the material, but also on the active learning of each student, so that students can actively participate in learning and build enthusiasm and confidence in learning to form self-efficacy. In addition, it is necessary to have a learning support room that supports the learning style of each student, especially when studying in class.

4. CONCLUSION

This study aims to determine whether self-efficacy and learning style have a relationship with the learning activeness of social studies basic education students. Based on the results of the research and discussion that have been described, it can be concluded that self-efficacy and learning styles have a relationship to student learning activeness. The implications of this research will be able to add to the knowledge of lecturers or educators regarding the characteristics of each student related to self-efficacy, learning style. In class lectures, lecturers will find it easier to convey material and can increase student learning activity and can provide motivation for each student in dealing with the difficulties they encounter in the learning process

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