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The Influence of Teachers' Pedagogic Competence on Student Learning Activity

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ABSTRACT

Student activity during the teaching and learning process is one of the indicators of students' desire or motivation to learn. One of the factors that affects learning activity is the pedagogic competence factor of teachers. This study aims to find out the picture of teachers' pedagogic competence and the picture of student learning activity as well as to analyze the influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai. This study uses a quantitative method with an associative research type. The population in this study is 154 grade XI students with a sample of 77 students. Data collection was carried out by observation, questionnaire, and documentation techniques. The data analysis techniques in this study use descriptive statistical analysis and inferential statistical analysis. The results of the study show that the pedagogic competence of teachers is classified as good. Students' learning activity is classified as good. The results of hypothesis testing show that there is a positive and significant influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai

Keywords: Teachers' pedagogic, competence, student learning activity

INTRODUCTION

Education is basically an effort to provide certain knowledge, insights, skills and expertise to individuals to develop themselves to be able to face the changes that will occur later, because education will also create qualified and competent human beings (Darwis et al., 2022; Herman et al., 2022; Pangaribuan et al., 2022). Education is always related to a teacher as an educator and a student as a student where there is a process of transforming knowledge from educator to student through the teaching and learning process (Arhas et al., 2023; Darwis et al., 2023; Nasrullah et al., 2024; Saleh & Arhas, 2024).

Learning is the most important thing in education because with learning there are activities towards behavior change. Activities are very important in the teaching and learning process. Student activeness in the teaching and learning process is very necessary. Because student activity in the learning process is the student's participation in the student's thoughts, attitudes or behaviors themselves which will then determine the learning outcomes (Akib et al., 2024; Suarni, 2017). The success of a learning in school depends on the level of student activity in learning. The activeness in question is quality activeness. Quality activeness is characterized by many responses from students, many questions asked and ideas expressed related to the material studied (Maradona, 2016).

Active learning literally comes from the word active which means busy, enterprising (KBBI, 2024). Active gets the beginning and suffix –an, so that it becomes active which means activity or busyness. So, active learning is the activity or busyness of students in teaching and learning activities both formally and informally that support the success of student learning. The activeness of students in the learning process will cause high interaction between teachers and students as well as with themselves. (Riswani & Widayati, 2012) stated that student learning activity is an activity carried out by students

in the learning process that involves emotional abilities and puts more emphasis on student creativity, improves their minimum abilities, and is able to become creative students and be able to master concepts.

Student activity during the teaching and learning process is one of the indicators of students' desire or motivation to learn. The form of student activity in the learning process can be seen from the participation of students in the learning process, such as listening to explanations, often asking questions to teachers or other students, discussing, being able to answer the questions given, solving problems, actively working on the assigned tasks, and being able to present the tasks that have been completed.

Many factors can affect student activity during the learning process. One of them is teachers because teachers who are educators are required to be qualified teachers, have competence, and are also innovative in carrying out their duties (Dantas & Cunha, 2020; Saleh et al., 2021; Wahyuni et al., 2019). A teacher must be able to manage learning well in order to be able to increase student activity in the learning process because students are the main subjects in learning. Teachers who are able to carry out their roles can be said to be competent teachers.

One of the factors that affects learning activity is the pedagogic competence factor of teachers. Pedagogic competence is the ability of teachers to manage student learning (Andriana et al., 2015; Mulyasa, 2012; Rahman & Purwoko, 2020; Saleh & Arhas, 2019). Padagogic competence is very necessary so that teachers are able to manage learning and encourage students to play an active role in learning by creating interesting and fun learning. Student activeness in learning is important because knowledge, skills, and attitudes are not only taken for granted, but students themselves must process them.

Since the spread of the issue of *the spread of Covid-19* in Indonesia in March 2020, the Education Office has required students to study at home for a relatively long time. Students study at home supervised by their parents and guided by online subject teachers. This is a challenge for teachers to still be able to create interesting, active, and fun learning. Even though learning is carried out remotely or online, teachers must be able to increase student activity in the learning process. Teachers can take advantage of teaching video applications that display the teacher's face so that it is more effective in delivering information to students (Arhas et al., 2022; Jamaluddin et al., 2022; Nasrullah & Siraj, 2022; Suprianto et al., 2020; Takdir et al., 2021).

In the process of face-to-face learning directly or remotely, often students do not pay attention to the teacher when explaining the subject matter, students tend not to ask questions to the teacher even though they do not understand the material that has been taught, students do not dare to put forward their ideas or ideas and sometimes students do not do the assignments given by the teacher and there are also teachers who are still unskilled. So teachers must try to motivate students to play an active role in learning that is carried out according to the student's own circumstances. To increase student learning activity, qualified and competent teachers are needed to manage learning well, therefore it is important for a teacher to have teacher pedagogic competence which is absolutely a must for professional teachers.

Currently, there are still educational institutions that face problems in activating students in learning, one of which is SMA Negeri 7 Sinjai. Based on the observations made, it shows that the learning carried out at SMA Negeri 7 Sinjai is carried out online using online learning media such as *the Google Meet* application which allows to conduct *video teleconferences*, *Google Classroom* applications and *Whatsapp* which allows teachers and students to conduct learning without going face-to-face by providing learning materials in the form of PowerPoint slides, learning videos, photos of subject matter from books, assignments (independent or group), as well as assessment. In addition, teachers use *Google Forms* to assign assignments and assessments. Through online learning, it was shown that the activeness of class XI students consisting of 5 classes as a whole was still

relatively low. This is evidenced by the lack of interaction between teachers and students, students and students, when students are given the opportunity to ask questions there are some students who are just silent, the same when given questions by the teacher and asked to express their opinions, and sometimes there are students who do not do the assignments given by the teacher and there are many more phenomena that occur during the learning process that cause a lack of student learning activity at SMA Negeri 7 Sinjai.

METHODS

This research is a research with a quantitative approach, because the research data is in the form of numbers and analysis using statistics and has met the scientific principles, namely concrete/empirical, objective, structured, rational, and systematic. Quantitative research as a research method based on the philosophy of positivism, is used to research on a specific population or sample, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative/statistical with the aim of testing predetermined hypotheses. The type of research used is associative research.

In this study, there are two variables studied, namely teacher pedagogic competence which is an independent variable and student learning activity which is a bound variable. The population in this study is 154 students and the researcher took 50% of the total population so that the sample size is 77 students.

The data collection techniques used in this study are observation techniques, questionnaire techniques, and documentation techniques. The data analysis techniques in this study are descriptive statistical analysis to describe the two variables using a frequency distribution table of mean values and inferential statistical analysis to test the research hypothesis using normality tests, Product Moment correlation analysis and simple linear regression analysis.

RESULT AND DISCUSSION

The results of the data analysis presented in this study are data obtained from the results of a questionnaire given to 77 respondents who became a research sample where the aim was to find out the picture of teachers' pedagogic competence and the picture of student learning activity as well as to analyze the influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai and the observation results presented are data obtained by the researcher as a support for the data questionnaire results. The data analysis will be described as follows:

Pedagogic Competence of Teachers

Based on the results of statistical calculations using SPSS, it can be known that the average value obtained by the teacher's pedagogic competency variable is 152.82 which is in the interval of 127 – 156. For more details, please see the following frequency distribution table:

Table 1: Distribution of Data Frequency of Teacher Pedagogic Competency Variables

Interval	Frequency	Percentage	Category
157 – 186	34	44,16%	Sangat Baik
127 – 156	35	45,45%	Baik
97 – 126	8	10,39%	Pretty Good
67 – 96	0	0,00%	Not Good
37 – 66	0	0,00%	Bad
Sum	77	100,00%	

Source: Data processing results

Based on the results of data processing, an average value of 152.82 was obtained which was in the interval of 127 – 156. This means that the description of teachers' pedagogic competence based on the responses of 77 respondents amounted to 45.45% which was classified as **good**. Furthermore, there were 44.16% classified as very good, 10.39% classified as moderately good, 0.00% classified as poor, and 0.00% classified as unfavorable.

Based on the results of the observations made by the author, the majority of teachers of SMA Negeri 7 Sinjai have seen their good pedagogical competence in managing learning, namely mastering the characteristics of students, mastering learning theories and educational learning principles, organizing educational learning, being able to utilize information and communication technology for the benefit of learning, communicating effectively, empatheticly, and politely with students, conducting assessments and evaluations of learning processes and outcomes and utilizing the results of assessments and evaluations for the benefit of learning. Although there are still teachers who are still not skilled in managing student learning well in several indicators that are influenced by various factors.

Teachers' pedagogic competence based on the explanation of ten indicators obtained an average score of 152.82 which is in the interval of 127 – 156. This means that the picture of teachers' pedagogic competence based on the responses of 77 respondents of 45.45% is classified as good. Although overall the pedagogic competence of grade XI teachers of SMA Negeri 7 Sinjai is good, it is highly expected that teachers always improve their competence, especially pedagogical competence. Because the pedagogic competence of teachers in opinion (Mulyasa, 2012) is the ability of a teacher to manage student learning. Without adequate pedagogic competence of teachers, learning is less effective and tends to make students feel bored and less enthusiastic in participating in learning. This is supported by opinions (Ramli, 2016) that by mastering pedagogical competence, teachers can provide satisfactory educational services for students. To achieve this competence, it does require education, training, and experience from a teacher.

Based on this explanation, it can be concluded that the pedagogic competence of teachers is very important to continue to be improved. Therefore, teachers need to increase knowledge, training and experience, so that they are able to produce quality students.

Student Learning Activity

Based on the results of statistical calculations using SPSS, it can be found that the average score obtained by the variable of student learning activity is 96.44 which is in the interval of 81 – 99. For more details, please see the following frequency distribution table:

Table 2: Distribution of Data Frequency of Variable Student Learning Activity

Interval	Frequency	Percentage	Category
100 – 120	33	42,86%	Excellent
81 – 99	36	46,75%	Good
62 – 80	8	10,39%	Pretty Good
43 – 61	0	0,00%	Not Good
24 – 42	0	0,00%	Bad
Sum	77	100,00%	

Source: Data processing results

Based on the results of data processing, an average score of 96.44 was obtained which was in the range of 81 – 99. This means that the picture of student learning activity based on the responses of 77 respondents is 46.75% which is classified as **good**. Furthermore,

there were 42.86% classified as very good, 10.39% classified as moderately good, 0.00% classified as poor, and 0.00% classified as unfavorable.

Based on the results of the observation made by the author, the majority of students of SMA Negeri 7 Sinjai have been seen to be active in following the learning process by actively listening to explanations from teachers and presentations from friends, there are several students who ask questions about the material studied, are able to answer questions even though they are not right, observe the experiment earnestly according to the instructions, rewrite the material that has been studied, observing the course of the presentation quite calmly, and there are also students who are able to give good opinions and are enthusiastic in participating in learning.

Student learning activity based on the explanation of eight indicators obtained an average score of 96.44 which is in the interval of 81 – 99. This means that the picture of student learning activity based on the responses of 77 respondents of 46.75% is classified as good.

Active learning includes student activities in learning as stated by Paul D. Dierich in (Hamalik, 2013), namely visual activities, oral activities, listening activities, writing activities, drawing activities, motor activities, mental activities, and emotional activities. It is hoped that in the learning process using these various activities, learning can go well and student activity is increasing.

Learning activity when viewed from visual activities comes from students reading the material, paying attention to pictures, and experiments. Oral activities are seen from students asking questions, expressing opinions, and discussions. Listening activities are seen from students listening to explanations from teachers and friends, or group discussions. Writing activities are seen from students writing materials, reports or summaries. Drawing activities are seen from students making graphs or diagrams, motor activities are seen from students doing experiments. Mental activities are seen from students responding to and solving problems. Emotional activities are seen from students taking an interest in learning, being enthusiastic and calm in participating in learning.

Activeness in learning is something important, without activeness, the learning process will not run well. This is in line with the opinion (Ramayulis, 2012) that the learning process is said to be effective if all students are actively involved, both mentally, physically, and socially. Based on the data obtained, it can be concluded that the majority of students in grade XI of SMA Negeri 7 Sinjai are classified as good

The Influence of Teachers' Pedagogic Competence on Student Learning Activity

Before analyzing the influence of teachers' pedagogic competence on students' learning activity, a data analysis test was first carried out using a normality test. The normality test aims to determine whether the distribution of research data is normally distributed or not, so that statistical methods can be used whether using parametric or non-parametric statistics. The normality test in this study uses the Chi Squared formula. Data testing is carried out by comparing the price of Chi Squared calculated with Chi Squared table, if the price of Chi Squared calculated is less than or equal to Chi Squared table (X^2 h ≤ X^2 t), then the distribution of the data is declared normal, and larger is declared abnormal. For more details, please see the following table:

Table 3: Normality Test Results

Variable	X^2_{count}	X^2_{table}	df	Information
X : Pedagogic Competence of Teachers	17,714	67,504	50	Normal
Y : Student Learning Activity	27,416	54,572	39	Normal

Source: Data processing results through SPSS

From the table, it can be seen that the Chi Squared calculated (X^2 h) variable of teacher pedagogic competence of 17.714 is smaller than the Chi Squared table (X^2 t) of 67.504 with a value of df 50 while the variable of student learning activity with a value of Chi Squared is calculated 27.416 smaller than the Chi Square of the table, which is 54.572 with a df of 39. From the normality test, it was shown that the variables of teacher pedagogic competence and learning activity of grade XI students of SMA Negeri 7 Sinjai met the criteria, normal distributed data.

After the data is normally distributed, a Product Moment correlation analysis is carried out. The correlation analysis of Product Moment is intended to find out whether there is a relationship between teachers' pedagogic competence and the learning activity of grade XI students of SMA Negeri 7 Sinjai. Based on the analysis of the results of the Product Moment correlation calculation using the SPSS application, the correlation between the teacher's pedagogic competence (X) and the student's learning activity (Y) was obtained (r) of 0.686. Then after consulting the guideline table for the interpretation of the correlation coefficient of the r value put forward by Sugiyono, the score is in the interval of 0.60 – 0.799 which means it has a strong relationship level.

To find out whether the correlation of the calculation results is significant or not, it is compared between the calculated r value of 0.686 and the table r value using a significant 5% with 77 respondents. So it can be known that the r value $_{\text{of the table}}$ is 0.227, from the results that have met the requirements, namely $r_{\text{calculation}} > r_{\text{table}}$, (0.686>0.227), the results obtained show that there is a relationship between the pedagogic competence of teachers and the learning activity of grade XI students of SMA Negeri 7 Sinjai.

After the relationship between variables is known, then a simple linear regression analysis is carried out. The purpose of the simple linear regression analysis is to analyze the influence of teachers' pedagogic competence on students' learning activity and test the hypothesis in this study, namely "it is suspected that there is a significant influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai.

The test criteria are if F_{count} greater than F_{table} pada uji taraf signifikan 5% maka H_0 rejected which stated that there was no influence of teachers' pedagogic competence on students' learning activity and H_1 which stated that there was an influence of teachers' pedagogic competence on students' learning activity. For more details, please see the following table:

Table 4: Simple Linear Regression Analysis

Variable	B	F_{count}	Sig	T_{count}	Sig
Constant	34,098			4,424	0,000
		66,543	0,000		
Pedagogic Competence of Teachers	0,408			8,157	0,000

Source: Data processing results through SPSS

Based on the table, the regression equations α= 34.098 and b = 0.408 were obtained so that the resulting linear regression equations were:

Y= 34,098 + 0,408 X

With a constant of 34.098, it states that if there is no pedagogic competence of teachers, then the student's learning activity is 34.098. The regression coefficient of 0.408 states that the more pedagogic competence of teachers increases, the more active learning students will increase by 0.408. On the other hand, if the teacher's pedagogic competence decreases, then the student's learning activity will also decrease by 0.408. So the (+) sign indicates the direction of the relationship in the same direction, while the sign (-)

indicates the direction of the relationship is inversely proportional to the variable (X) and the variable (Y).

To determine the simple linear regression, the F test is used through the Anova table. The accepted hypothesis is H0 : α : β or β ≠ 0. From the results of the calculation of the F test obtained F_{count} amounting to 66,543 with F_{table} amounting to 66,543 with F_{count} lebih besar dari F_{count}. Thus, due to, F_{count} greater than F_{table} (66,543 > 3,97) so H_0 rejected and H_1 accepted, which means that there is a dependence of the teacher's pedagogic competency variable on the student's learning activity, so that directly the results of the data management in this study with the hypothesis that "it is suspected that there is an influence of the teacher's pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai" is declared acceptable.

The results of the determination coefficient analysis were r^2 = 0.470 or 47 %, which means that the influence of teachers' pedagogic competence on the learning activity of grade XI students was 47%, while the difference of 53% was found outside the teacher's pedagogic competency variables or other variables that were not studied.

The results of the simple linear regression analysis show the equation Y = 34.098 + 0.408 X by obtaining F_{count} as 66,543, r_{count} by 0.686 and r^2 as 0,470. price F_{table} at the significance level of 5% is 3.97 and the price of r_{table} at N=77 with a significance level of 5% of 0.227, which means F_{count} greater than F_{table} (66,543>3,97) and r_{count} greater than r_{table} (0,686>0,227). Based on the results of hypothesis testing, it can be stated that there is a positive influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai.

This states that the higher the teacher's pedagogic competence, the higher the student's learning activity, and conversely, the lower the teacher's pedagogic competence, the lower the student's learning activity. Thus, the pedagogic competence of teachers and student learning activity are variables that have a direct relationship in carrying out the process of teaching and learning activities that are in accordance with the learning needs of students.

The pedagogic competence of teachers in this study is compared to or relevant to the opinion of (Mulyasa, 2012) that the learning process and competency formation need to be carried out calmly and fun, which of course requires teachers' activities and creativity in creating a conducive environment. The learning process and competency formation are said to be effective if all students are actively involved, both mentally, physically, and socially.

In general, the results of the research on the pedagogic competence of teachers are in line with the research conducted by (Ariyanti, 2019) researching on "The Influence of Teachers' Pedagogic Competence on the Learning Outcomes of Students' Moral Beliefs at MTs At-Thoyyibah Depokrejo, Trimurjo District, Central Lampung Regency". The results of this study concluded that there was an influence of teachers' pedagogic competence on the learning outcomes of students' Moral Beliefs at MTs At-Thoyyibah Depokrejo, Trimurjo District, Central Lampung Regency. This is evident from the results of data analysis which shows that the price of Chi Squared is calculated at 52.828 is greater than the Chi Squared table with a significance of 1% or 5%. In addition, this research is relevant to the research conducted by (Febrianto, 2014) which shows that classroom management skills and teachers' teaching styles have an effect on students' learning activity.

Based on the theory and results of this research, it means that the pedagogic competence of teachers is an important thing in order to increase student learning activity and teachers are able to encourage students to actively participate in every learning event that is being carried out.

CONCLUSION

Based on the results of the analysis and discussion described about the influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai. The pedagogic competence of grade XI teachers of SMA Negeri 7 Sinjai with an average score of 152.82 is in the good category with a percentage of 45.45%. The learning activity of grade XI students of SMA Negeri 7 Sinjai with an average score of 96.44 is in the good category with a percentage of 46.75%. There is a positive and significant influence of teachers' pedagogic competence on the learning activity of grade XI students of SMA Negeri 7 Sinjai. This is shown by a determination coefficient of 0.470 which shows a percentage of 47% while the remaining 53% is found outside the teacher's pedagogic competency variable. So that the higher the pedagogic competence of the teacher given, the higher the learning activity of grade XI students of SMA Negeri 7 Sinjai.

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