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THE INFLUENCE OF LEARNING INDEPENDENCE, SCHOOL ACADEMIC ENVIRONMENT, AND TEACHER PEDAGOGIC COMPETENCE ON STUDENT LEARNING OUTCOMES AT MAN 1 BANYUMAS

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Abstract

The purpose of this study is to determine the influence of learning independence, school academic environment, and pedagogic competence of teachers on student learning outcomes. This type of research is a quantitative research with a survey method. The number of samples in this study is 179 students of class XI MAN 1 Banyumas who were taken using census techniques. The data collection technique was carried out using questionnaires. Data analysis used multiple linear regression analysis to determine the influence of learning independence, school academic environment, and teacher pedagogic competence on student learning outcomes. The results of the study showed that: (1) the variable of learning independence partially had a positive effect on student learning outcomes. This is evidenced by the acquisition of the$_{t\text{-value of}}$ the table ≥ t-table (3.502 ≥ 1.654) and the significance value of 0.001 < 0.05. (2) the variables of the school's academic environment partially have no effect on student learning outcomes. This is evidenced by the acquisition of $t_{calculation}$ of 1.521 which shows that $t_{calculates} < t_{table}$ (1.521 < 1.654) and a significance value of 0.130 > 0.05. (3) the variable of teachers' pedagogic competence has no effect on student learning outcomes. This is evidenced by the acquisition of t_{hitumg} of 0.544 which indicates that $t_{calculates}$ the < t_{table} (0.544 < 1.654) and the significance value of 0.587 > 0.05.

Keywords: Learning Independence; School Academic Environment; Teacher Pedagogic Competence, Student Learning Outcomes

INTRODUCTION

Education has a very important role in shaping a person's quality, especially in facing the various challenges that exist in modern human life today. Education can form a whole human being who has noble knowledge, attitudes, and behaviors. According to Rahman *et al*., (2022) Education is a conscious effort to pass on culture to the next generation. Education is not just about imparting knowledge or skills, it also develops a person's capacity to improve their social and personal lives. However, the compatibility between educational achievements in the field and national education goals is still a problem that must be considered. The education process in Indonesia is still not carried out optimally. This can be seen from the results of the research *Program for International Student Assesment* (PISA) 2022 by *Organisation for Economic Co-operation and Development* (OECD), which was announced on December 5, 2023. PISA 2022 data can be seen in the following table.

Table 1. 1 PISA Scores in 2022

Country	Calculation Indicators			
	Math	Science	Literacy	Total Score
Singapore	575	561	543	1679
China	552	543	510	1605
Taiwan	547	537	515	1599
Japan	536	547	516	1599
South Korea	527	528	515	1570
Indonesia	366	383	359	1108
Morocco	365	365	339	1069
Philippines	355	356	347	1058
Uzbekistan	364	355	336	1055
Dominika (Rap)	339	360	351	1050
Cambodia	336	347	329	1012

Sources: (OECD, 2022)

Based on Table 1.1, it can be seen that the results of *the 2022 Program for International Student Assessment* (PISA) show that Indonesia is in the 67th position out of 81 OECD member countries with a score of 366 for Mathematics, 383 for Science, and 359 for Literacy. This shows that education in Indonesia has not been able to achieve optimal results. PISA results are not published every year, so PISA data in 2022 is the latest data issued by the *Organisation for Economic Co-operation and Development* (OECD) which is the latest reference for international education quality assessments.

According to Sutrisna (2021), study results *Program for International Student Assesment* (PISA) in 2022 shows that the achievement of international learning outcomes is still below the average of OECD countries in literacy, mathematics, and science. This condition shows that Indonesian students still face various challenges in understanding the material, thinking critically, and applying science concepts in their daily lives. In addition, based on data from the Central Java Education Quality Assurance Center (BBPMP) (2022) There are 100 best schools based on the achievement of education quality indicators. The list is one of the benchmarks to evaluate the quality of education units and competitiveness at the provincial level. This implies that the school must meet certain standards in order to be categorized as the best school. However, several educational units have not been listed in the list of the 100 best schools, namely MAN 1 Banyumas. MAN 1 Banyumas is one of the institutions that has excellent accreditation (A) and shows a high commitment to producing graduates who are qualified, characterful, and competitive. However, the results of direct interviews conducted by the author with economics teachers at MAN 1 Banyumas, it is known that student learning outcomes are still relatively low and in the process of learning economics at the school there are still many students who have not been able to complete the economics tasks given by the teacher independently during classroom learning. Some students also show low enthusiasm for learning, such as distracting by talking outside of the learning topic, playing on mobile phones, or even being sleepy during the learning process. This results in low learning outcomes obtained by students.

The results of the interview with the economics teacher of MAN 1 Banyumas, it is known that student learning outcomes, especially in economics subjects, are still not optimal. This opinion is also supported by the results of interviews with grade XI students who stated that teachers' pedagogic competence during the learning process is still not optimal, especially in the use of digital literacy. Teachers tend to use available supporting books and more often apply lecture methods during the learning process, economic learning materials that take place are sometimes difficult to understand, the learning strategies used by teachers have not fully helped students in understanding economic material, and students also rarely plan learning activities and even only

study when there are homework or before exams. This causes the learning outcomes obtained by students to be low.

This research is focused on grade XI students because students are in a relatively stable stage of academic development and have adapted to the school's academic environment. Grade XI students have gone through the transition period from junior high school/MTs to high school/MA class X so that they have enough learning experience to show learning independence, understand the school's academic environment, and gain learning experience and teacher's teaching style in the learning process (Hilmi *et al.*, 2025). However, based on the description of the problem above, it shows that the learning outcomes of grade XI students of MAN 1 Banyumas still do not reach optimal results. This is the basis for researchers to focus their research on grade XI students. The learning outcomes of grade XI students in economics at MAN 1 Banyumas can be seen in the following table.

Table 1.2 Economics Learning Outcomes Class XI MAN 1 Banyumas

Classes	Number of Students with a Grade Range				Quantity Students
		76 – 85	86 - 91	92 - 100	
XI – 8		6	1	3	40
XI – 9	11	17	10	0	38
XI - 10	30	2	3	0	35
XI - 11	15	14	1	4	34
XI – 13	14	10	6	5	35
Total		**49**	**21**	**12**	**182**

Source: Economics Learning Outcome Data Class XI

Based on Table 1.2 of student learning outcomes in economics class XI, it can be concluded that most students obtained scores below the Minimum Completeness Criteria (KKM) that have been set by the school, which is 76. This condition indicates the need to improve the quality of economic learning. Students not only understand the material theoretically, but students can also apply economics in their daily lives. Thus, a more effective learning strategy is needed so that the number of students who reach or exceed the KKM can increase.

Student learning outcomes are influenced by various factors, both internal (in students) and external (outside students). Marlina & Sholehun (2021) stating internal factors consisting of interests, talents, motivations, and ways of learning. External factors consist of the school environment and the family environment. Siregar (2024) Stating internal factors consists of physiological aspects, psychological aspects, student intelligence, student attitudes, students' talents and interests. External factors consist of the social environment of the community, the social environment of the family, and the social environment of the school, including the factors of teachers in it. Latifa & Farihah (2023) It also states that learning outcomes are influenced by learning independence and learning discipline.

Learning independence is One of the internal factors that can affect student learning outcomes. According to Woi & Prihatni (2019) Learning independence is a person's ability to solve problems independently without the help of others, have confidence, be creative, and take initiative wherever they are. While learning independently means learning without depending on others, having one's own will, and being responsible for solving problems.

Basically, learning independence is defined as the behavior of a person who dares to take initiative, overcome problems or obstacles, is confident, and does not give up easily. Learning independence is reflected in students' ability to learn and think independently, as well as the awareness that the learning process does not always depend on the help of others. In this process, students have the ability to control their behavior so that it is in accordance with the learning goals that have been set. They also understand their own strengths and weaknesses so that they can use them to achieve the best results (Febriyanti & Imami, 2021). Therefore, it can be concluded that student learning independence significantly affects student learning outcomes. Learning independence is very important for students who are prone to discipline problems, low motivation, low learning concentration, difficulty understanding subject matter, low confidence, irregular study habits, especially in economics lessons.

Tommy's Research *et al*., (2024) stated that learning independence has a positive and significant effect on student learning outcomes. In line with Saputri's research *et al*., (2020) stated that learning independence has a positive and significant effect on student learning outcomes. Ilmaknun & Ulfah (2023) stated that learning independence has a positive and significant effect on student learning outcomes. The research is in contrast to the research of Aini & Rafsanjani (2024)which states that the pedagogic competence of teachers does not have a positive and significant effect on learning outcomes.

In addition to being influenced by internal factors, learning outcomes are also influenced by external factors in the form of the school's academic environment which greatly determines the success of the learning process and the achievement of student learning outcomes. According to Khairunnisa *et al*., (2024) The school environment is a place where children learn and this environment greatly influences their religious development. The academic environment in schools includes everything related to education, such as curriculum, teaching methods, and methods for assessing student learning outcomes. As stated by Sudjana (2016), the school environment has an important role in influencing student learning outcomes. The school environment is essential to provide students with a broad learning experience. The school environment not only serves as a place of academic learning, but it also influences the social, emotional, and character development of students.

Learning outcomes are strongly influenced by the school's academic environment, which includes curriculum, educational resources, and teaching methods. Schools should have a positive culture that values achievement, hard work, and self-confidence. Building a safe, inclusive, and supportive school environment for students' emotional well-being is essential to make students more motivated to reach their best potential (Enjelita *et al*., 2024). Building positive relationships between educators and students, providing psychological support, and involving families in the learning process are ways to achieve a healthy and positive learning environment (Luciana) *et al*., 2025). According to Yuliasari (2019) There is a positive and significant relationship between educational facilities in schools and student learning outcomes. From this explanation, it can be concluded that school educational facilities play an important role in supporting the learning process. Student learning outcomes tend to increase if the educational facilities are good.

Shodiq & Darmawan's Research (2025) stating that the school's academic environment has a positive and significant effect on student learning outcomes. The research is in contrast to the research Nafisah & Chasanah (2025) which states that the school's academic environment does not have a positive effect on student learning outcomes. This is because there are other factors that influence, such as student learning motivation, health and physical problems, family support, classroom atmosphere, infrastructure, teachers, and teacher teaching methods. These conditions show that the influence of the school's academic environment on student learning outcomes can vary, depending on the context and quality of the learning environment in each school.

Another external factor that affects student learning outcomes is the pedagogic competence

of teachers. Teachers play an important role in the learning process. The role of teachers in education can be analogous to the role of supervisors. According to Febriana (2019) Teachers must have good insight skills or educational foundations, have an understanding of students, and the ability to develop a curriculum or syllabus. Teachers must understand the needs of students and provide appropriate assistance so that they can reach their full potential.

Teachers have a very important role in shaping students' intellectual, emotional, and social development and preparing them for future difficulties (Ghifarix & Khasanah, 2025).

Teacher pedagogic competence is the ability of teachers to understand their students, create lesson plans, and help increase students' potential to maximize their abilities. According to Nurhidayati & Sobirin (2025) Pedagogic competencies include understanding student characteristics, understanding learning theories, curriculum development, educational learning activities, increasing student potential, communicating with students, assessing and evaluating. This is in accordance with Law No. 14 of 2005 concerning Teachers and Lecturers which explains that pedagogic competence is the ability to manage student learning. Pedagogic competence is defined as the ability of teachers to design teaching and learning programs, implement effective learning, and evaluate student learning outcomes. Pedagogic abilities allow teachers to build a comfortable and interactive learning environment with a focus on increasing the potential of each student (Febriana, 2019). Based on this explanation, it can be concluded that the pedagogic competence possessed by teachers will affect the learning outcomes obtained by students.

Marleta Research *et al*., (2021) stated that the pedagogic competence of teachers has a positive and significant effect on student learning outcomes. In line with the research of the Ummah (2022) stated that the pedagogic competence of teachers has a positive and significant effect on student learning outcomes. Ahroza (2023) It also states that teachers' pedagogic competence has a positive and significant effect on student learning outcomes. The research is in contrast to Nawawi's research (2021) which states that the pedagogic competence of teachers does not have a positive and significant effect on learning outcomes. Although teachers' abilities are essential for improving the quality of learning, previous research has shown that other factors, such as how students organize their own learning and school conditions also affect student learning outcomes. Therefore, it is necessary to look more deeply at how these three things relate to each other.

Based on previous research, it shows that most studies still focus on the influence of one or two variables on student learning outcomes. For example, research that emphasizes learning independence as an internal factor that affects student learning outcomes and has not been associated with external factors such as the school's academic environment or teachers' pedagogical abilities. In addition, although some studies emphasize more on teachers' pedagogic competence, they have not looked at the overall aspect of student learning independence. Therefore, this research needs to be carried out because there is no research that thoroughly examines the influence of learning independence, school academic environment, and teacher pedagogic competence on student learning outcomes, especially in economics lessons. This condition shows that not only internal factors such as learning independence, but also external factors, such as the school's academic environment which must create a good learning atmosphere, and the teacher factor, especially the pedagogic competence of teachers, which is very important for the success of the learning process.

Based on the background and data on the low learning outcomes of the students, the author is interested in conducting further research on "The Influence of Learning Independence, School Academic Environment, and Teacher Pedagogic Competence on student learning outcomes at MAN 1 Banyumas".

LITERATURE REVIEW

Theory Constructivism

The theory of constructivism is a very important theory in the world of education and serves as a foundation for learning. This theory provides a new view of how students develop and build knowledge through active learning experiences (Sri) *et al*., 2023). This constructivism comes from the word *constructive* and *ism*. Laughter *constructive* means to build, improve, and develop, while *ism* in the Indonesian dictionary it means flow or understanding. The concept of constructivism in the philosophy of knowledge emphasizes that one's knowledge is the result of their own construction process. According to the constructivist perspective, students actively participate in the learning process and are given the opportunity to consciously use their own learning strategies, while teachers play a role in helping students gain a higher understanding (Sri *et al*., 2023).

Learning Outcomes

Learning outcomes are defined as the abilities possessed by students after the learning process includes cognitive, affective, and psychomotor abilities (Salsabila *et al*., 2024). According to Windiarti (2023) A certain learning process, student learning outcomes can be determined, namely through learning evaluation. These learning outcomes improve students' ability to understand the material taught by the teacher. According to Practical (2017) Learning outcomes include values, understanding, attitudes, perceptions, abilities, and patterns of actions. Student learning outcomes can be seen from assignments, exams, and student involvement in asking and answering questions. In the world of education, it is often emphasized that learning success does not only depend on the numbers on the report card or diploma, student learning outcomes can also be assessed for cognitive success (Dakhi & South, 2020).

Learning Independence

Learning independence is an attitude possessed by students including setting learning goals, organizing and controlling learning, identifying and utilizing appropriate learning resources, seeing difficulties as a challenge, determining how to learn, assessing learning processes and outcomes (Anggraeni & Taufik, 2023). According to Mulyadi & Syahid (2020) Independent learning encourages students to actively participate before and after studying. Students with high levels of learning independence tend to plan what to learn. After the lesson is over, students will relearn the material given by the teacher, either through reading or discussing with friends. Students have the ability to develop their own ideas, assess the learning process and outcomes, determine learning methods, and utilize a variety of relevant learning resources. Therefore, students who implement independent learning will get better results compared to students who do not implement independent learning (Indians *et al*., 2023).

School Academic Environment

The school's academic environment is the atmosphere of the school, the implementation of teaching and learning activities, and various extracurricular activities in the school (Fadilah, 2024). The school environment is very important in determining the success of students while learning (Fadilah, 2024). As the main place where the learning process takes place, the school's academic environment plays a major role in helping the learning process run well. Therefore, the quality of the school's academic environment must be given primary attention in order to create an effective learning atmosphere and support students to achieve good learning outcomes.

Pedagogic Competence of Teachers

Teachers' pedagogic competence is the teacher's cognitive ability when carrying out the learning process, managing students, and basic teaching skills, as well as the use of educational technology (Fransiska *et al*., 2025). Pedagogic competence is one of the basic abilities that a teacher must have. This ability includes the ability to manage student learning, such as understanding

students, designing and implementing learning, evaluating learning outcomes, and developing students to be able to actualize their various potentials (Lestari *et al*., 2023).

RESEARCH METHODS

This research is a survey research that uses a quantitative approach. Quantitative approaches fall under the category of confirmatory methods, as they are often used to test hypotheses (Sugiono, 2022). This approach was chosen with the aim of testing the hypothesis about the influence of learning independence, the school academic environment, and the pedagogic competence of teachers on the learning outcomes of grade XI students in economics subjects at MAN 1 Banyumas.

The location of the research was carried out at MAN 1 Banyumas, which is located at Jalan Senopati 1, Arcawinangun, East Purwokerto District, Banyumas Regency, Central Java, postal code 53113. The population in this study is grade XI students for the 2025/2026 school year at MAN 1 Banyumas. The sampling technique used a census technique, due to the relatively small population, namely 179 students of grade XI Social Studies at MAN 1 Banyumas who took economics subjects. The number of respondents in this study was adjusted from 182 students to 179 students, due to three students from different classes who moved schools or left MAN 1 Banyumas during the research period.

The variables in this research consist of independent variables and bound variables. The independent variable (X) included learning independence, the school's academic environment, and the teacher's pedagogic competence. Meanwhile, the bound factor (Y) is the learning outcomes of students in economics subjects. Data collection techniques using questionnaires to obtain data related to the influence of learning independence, school academic environment, and teacher pedagogic competence on student learning outcomes. The questionnaire that will be distributed to the respondents in this study is a closed questionnaire. The data analysis technique used normality, multicolinearity, heteroscedastisity, multiple linear regression analysis, F test, and t test. The questionnaire was prepared based on indicators of learning independence, school academic environment, and pedagogic competence of teachers. This instrument was tested for validity and reliability. The validity test was carried out using the Product Moment Correlation formula. Instruments are declared valid if they can measure what is expected Kurniawan (Kurniawan, 2018). Meanwhile, the reliability test uses the Cronbach's Alpha formula to see the consistency of the answers from the respondents.the instrument is declared reliable if the Cronbach's Alpha value is greater than 0.60 (Kurniawan, 2018).

RESULTS AND DISCUSSION

Results

In this study, multiple linear regression analysis test was used which showed an R Square value of 0.144. This means that learning independence, school academic environment, and teacher pedagogic competence only contribute 14.4% to student learning outcomes, while the other 85.6% is influenced by others.

Table 1.3 Multiple Linear Regression Analysis Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.380a	.144	.129	3836.348

a. Predictors: (Constant), X3, X1, X2

The variables tested in this study were Learning Independence (X1), School Academic Environment (X2), and Teacher Pedagogic Competence (X3) as independent variables and Student Learning Outcomes (Y) as bound variables. The following are the results of the hypothesis of the F Test and the t test:

Table 1.4 F Test

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	433574076.254	3	144524692.085	9.820	.000b
	Residual	2575574614.584	175	14717569.226		
	Total	3009148690.838	178			

a. Dependent Variable: Y
b. Predictors: (Constant), X3, X1, X2

From Table 1.4, it shows that the F value$_{is}$ calculated as 9,820 and the F value$_{of\ the\ table}$ is 2.66, $F_{is\ calculated} > F_{table}$ (9,820 > 2.66) so that Learning Independence, School Academic Environment, and Teacher Pedagogic Competence together have a positive effect on the variables of student learning outcomes.

Table 1.5 Results of the t test

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	24012.482	2922.176		8.217	.000
	X1	.193	.055	.283	3.502	.001
	X2	.116	.076	.126	1.521	.130
	X3	.026	.047	.047	.544	.587

a. Dependent Variable: Y

Table 1.5 indicates that the learning independence variable (X1) has a calculated t value of 3.502 which indicates that the $t_{calculation} \geq t_{table}$ (3.502 ≥ 1.654) and the significance value of 0.001 < 0.05 so that H_a is accepted. Thus, the variable of learning independence partially has a positive effect on student learning outcomes. The school academic environment variable (X2) has a calculated t value of 1.521 which indicates that $t_{calculates} < t_{table}$ (1.521 < 1.654) and a significance value of 0.130 > 0.05 so that H_a is rejected. Thus, the variables of the school's academic environment partially have no effect on student learning outcomes. The teacher's pedagogic competency variable (X3) has a calculated t value of 0.544 which indicates that $t_{calculates} < t_{table}$ (0.544 < 1.654) and a significance value of 0.587 > 0.05 so that H_a is rejected. Thus, the variable of teachers' pedagogic competence partially does not affect student learning outcomes.

Discussion

The Influence of Learning Independence on Student Learning Outcomes

The results of the study show that learning independence has an effect on student learning

outcomes in class XI MAN 1 Banyumas. The results of multiple linear regression analysis also showed the result of a regression coefficient of 0,193 which means that learning independence has a positive influence on student learning outcomes. This means that any increase in learning independence tends to be followed by an increase in student learning outcomes. Thus, the coefficient shows that learning independence is one of the factors that has a strong contribution in influencing student learning outcomes.

Based on the results of the distribution of respondents' answers, the average percentage of the learning independence variable was 74.21% which was included in the good category, because the average score percentage was in the interval of 61-80. This shows that in general, students have been able to learn independently, such as being able to manage study time, complete assignments independently, and be responsible for the learning process. Good learning independence shows that students are not only dependent on teachers, but also active in organizing and directing their learning process. A high level of learning independence also plays an important role in improving students' understanding of the subject matter. Independent students tend to have the initiative to seek additional learning resources and actively solve learning problems. This allows students to build a deeper and more sustainable understanding, thus positively impacting the improvement of their learning outcomes.

The results of this study are in line with Tommy's research *et al*., (2024) and Saputri *et al*., (2020) that learning independence has a positive effect on student learning outcomes, because the higher the learning independence possessed by students, the more their learning outcomes will increase.

The Influence of School Academic Environment on Student Learning Outcomes

The results of the study showed that the school's academic environment had no effect on student learning outcomes in class XI MAN 1 Banyumas. This is evidenced by a $_{t\text{-count}}$ value of 1.521 which indicates that $t_{counts} < t_{table}$ (1.521 < 1.654) and a significance value of 0.130 > 0.05.
The results of the study showed that the school's academic environment had no effect on student learning outcomes in class XI MAN 1 Banyumas. The results of multiple linear regression analysis also showed the result of a regression coefficient of 1.521 which means that the school's academic environment has a positive influence on student learning outcomes in the direction of relationships. This means that any improvement in the school's academic environment tends to be followed by an increase in student learning outcomes.

Based on the results of the distribution of respondents' answers, the percentage of 68.57% was negative statements, namely "the teacher's teaching method makes it difficult for me to understand the subject matter". This percentage is quite high, which shows that most students still have difficulty understanding the material due to the teaching methods applied by teachers. Therefore, only about 31.43% of students are able to understand the material well. This condition shows that the learning approach used is not yet fully effective in helping all students understand the material well. In addition, in the indicator of the comfort of the learning place, a positive statement of 69.97% is "the classroom has a comfortable atmosphere for learning". This shows that most students feel comfortable in class. However, there are still 30.03% of students who feel uncomfortable with the classroom atmosphere. This condition shows that even though the classroom environment in general is relatively good, improvement efforts are still needed to create a more conducive classroom atmosphere and support student learning comfort.

The results of this study are in line with Lusiana's research *et al*., (2025) which shows that the school's academic environment does not have a significant influence on student learning outcomes. The study also states that a good academic environment does not always result in a significant improvement in learning outcomes if it is not coupled with students' readiness and involvement during the learning process.

The Influence of Teachers' Pedagogic Competence on Student Learning Outcomes

The results of the study showed that the pedagogic competence of teachers had no effect on the learning outcomes of students in class XI MAN 1 Banyumas. The results of multiple linear regression analysis also showed the result of a regression coefficient of 0.026 which means that the teacher's pedagogic competence has a positive influence on student learning outcomes in the direction of relationships. This means that any increase in teachers' pedagogic competence tends to be followed by an increase in student learning outcomes.

Based on the results of the distribution of respondents' answers, in the indicator of understanding insight or foundation, a percentage of 77.93% was obtained in the negative statement, namely "teachers teach without paying attention to educational goals". This percentage is relatively high, which shows that most students have a perception that in the learning process, teachers have not fully associated teaching activities with educational goals that should be achieved during the learning process. This condition shows that teachers still need to improve pedagogic competence, especially in the aspect of insight or foundation.

This condition causes less than optimal student involvement in the learning process, because the approach is not fully in accordance with the learning needs of students and can cause some students to become passive and lack understanding of the material in depth. In this case, even though teachers have good pedagogic skills, including the use of learning technology, this does not necessarily have an optimal impact on the achievement of learning outcomes. This is due to the factor that learning technology has not been fully optimized to encourage active student engagement, so in practice it tends to still function as a tool for delivering material and has not been able to create deep and significant interactions. In addition, the lack of student involvement and independent learning also weakens teachers' pedagogic competence on student learning outcomes. Students who are less active and tend to depend on teachers will have difficulty understanding the material independently even though the learning process has been carried out well.

The results of this study are in line with Nawawi's research (2021) which shows that teachers' pedagogic competence does not have a significant influence on student learning outcomes stating that active student involvement is essential for learning success.

CONCLUSION

Based on the results of the analysis and discussion in this study regarding the influence of learning independence, school academic environment, and pedagogic competence of teachers on the learning outcomes of grade XI students of MAN 1 Banyumas, it can be concluded as follows:

1. Learning independence has a positive effect on the learning outcomes of grade XI MAN 1 Banyumas students. This shows that the higher the learning independence possessed by students, the more their learning outcomes will increase. On the other hand, if learning independence is low, student learning outcomes also decrease.
2. The school's academic environment has no effect on the learning outcomes of grade XI MAN 1 Banyumas students. This shows that the school's academic environment has not been able to improve student learning outcomes if it is not optimally utilized by students in the learning process.
3. The pedagogic competence of teachers has no effect on the learning outcomes of students in grade XI MAN 1 Banyumas. This shows that improving teachers' pedagogic competence is not necessarily directly, improving student learning outcomes if it is not balanced with student involvement in the learning process.

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