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The Impact of Applying Educational Psychology on Pupils' Motivation to Learn at School

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Abstract

This study was motivated by the low levels of student learning motivation, which can affect engagement, perseverance and learning outcomes. The aim of this study was to analyse the effect of applying educational psychology on student learning motivation. The study employed a quantitative approach with an associative design. Data collection was carried out using a Likert scale questionnaire that had been tested for validity and reliability. Data analysis utilised descriptive statistics and simple linear regression. The results of the study indicate that the research instruments are valid and reliable, with a Cronbach's Alpha value of 0.854 for the variable 'application of educational psychology' and 0.886 for the variable 'learning motivation'. The results of the simple linear regression test showed a calculated F-value of 61.422 with a significance level of 0.000 (< 0.05), so it can be concluded that the application of educational psychology has a significant effect on students' learning motivation. The coefficient of determination (R^2) of approximately 0.618 indicates that the application of educational psychology accounts for 61.8% of the variation in students' learning motivation, whilst the remaining 38.2% is influenced by other factors outside the scope of this study. These findings confirm that the application of educational psychology principles in the learning process is a key factor in enhancing students' learning motivation.
Keywords: *educational psychology, learning motivation, learners, learning*

Introduction

Education plays a strategic role in developing high-quality human resources, in terms of knowledge, skills and attitudes (Fitriani & Sylvia, 2019). The success of the educational process is determined not only by the curriculum and learning resources, but also by the psychological state of learners whilst they are engaged in the learning process (Margaretha et al., 2023). One empirical issue still frequently encountered in schools is the low level of learners' motivation, evident in a lack of enthusiasm for lessons, low participation in class, and a tendency to procrastinate on assignments. This situation indicates that learning should not merely focus on the delivery of content, but must also consider the psychological aspects that influence learners' readiness and enthusiasm for learning.

Learning motivation is an internal or external drive that generates enthusiasm, direction, and perseverance in students to achieve learning objectives. High motivation encourages students to be more active, diligent, and responsible in the learning process (Zhao, 2025). Conversely, low motivation can result in low student engagement and poor learning outcomes. Efforts to enhance learning motivation must be supported by an approach capable of

understanding students' mental, emotional, and developmental conditions, one of which is through the application of educational psychology.

In recent years, research on educational psychology has shown that teachers' understanding of students' characteristics is closely linked to learning success (Moser & Martinek, 2021). Various studies confirm that learning that takes into account the developmental aspects, needs, interests, and individual differences of learners tends to create an effective learning environment (Majoko, 2019). Teachers who apply the principles of educational psychology are generally better able to select teaching methods, strategies, and approaches that suit the learners' circumstances, thereby increasing their engagement in learning (Yuniarti et al., 2023).

Recent studies also show that learners' motivation is influenced by the quality of interaction between teachers and learners, the provision of reinforcement, a conducive classroom atmosphere, and learner-centred learning strategies (Nazim, 2023). Educational psychology serves as a vital foundation for teachers to understand how learners think, feel, and behave during the learning process (Iswinarti, 2022). The application of educational psychology is not only conceptually relevant but also practically important in efforts to enhance learning motivation in schools (Dubinsky et al., 2022).

Previous research has generally tended to discuss educational psychology and learning motivation separately or within a broad scope. There remains a lack of studies specifically examining the impact of the application of educational psychology on students' learning motivation within the classroom learning context, particularly among secondary school students. Furthermore, not all previous studies directly treated the application of educational psychology as a variable whose influence on learning motivation was measured; consequently, the empirical relationship between these two variables still needs to be strengthened.

Given these circumstances, there is a gap between the importance of applying educational psychology in teaching practice and the limited empirical evidence directly demonstrating its impact on students' learning motivation. This gap is significant to investigate because learning motivation is a key determinant of educational success, whilst teachers, as practitioners of learning, require a scientific basis for applying approaches suited to students' psychological conditions.

Based on this analysis, the research question is: does the application of educational psychology influence students' learning motivation? The aim of this study is to test the influence of the application of educational psychology on students' learning motivation. The uniqueness of this study lies in its focus on directly testing the relationship between the application of educational psychology as the independent variable and students' learning motivation as the dependent variable within the context of school learning.

It is hoped that the results of this study will provide a theoretical contribution to the development of educational psychology research, as well as a practical contribution to teachers and schools in designing learning activities capable of enhancing students' learning motivation.

In this study, the application of educational psychology is limited to indicators that can be directly observed and assessed by pupils during classroom learning experiences, rather than internal aspects of the teacher that are inaccessible to pupils. From the students' perspective, these variables include: (1) the teacher's ability to understand students' characteristics, needs, and individual differences; (2) the teacher's ability to create a classroom atmosphere that is safe, comfortable, and conducive to the learning process; (3) the provision of motivation, attention, and positive reinforcement during learning; (4) the use of learning strategies that encourage students' active engagement; and (5) the quality of interaction between teachers

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and students, reflected through empathetic, appreciative, and supportive communication that fosters learning development. Consequently, students' assessment of the application of educational psychology in this study focuses on the teaching practices they experience directly within the classroom.

Method

This study employs a quantitative approach using an associative research design (Creswell, 2019). The quantitative approach is used to objectively test the influence of independent variables on dependent variables through numerical data analysed statistically. The associative research design is used to determine the influence of the application of educational psychology as the independent variable (X) on students' learning motivation as the dependent variable (Y).

This study was conducted in March–April. The population for this study comprised all 40 Year 10 pupils. As the entire population was used as the research sample, the sampling technique employed was total sampling (a census). Consequently, the sample size was equal to the population size, namely 40 pupils. This technique was chosen to obtain a comprehensive picture of the characteristics of the population under study. Data collection was carried out using a questionnaire as the primary research instrument. The measurement scale used was a Likert scale with five response options: strongly agree, agree, unsure, disagree, and strongly disagree.

Before being used as a data collection tool, the research instrument was first tested for validity and reliability. Validity testing was conducted to determine the accuracy of each statement item in measuring the variables under investigation. Reliability testing was conducted to determine the consistency of the instrument. Reliability testing in this study utilised Cronbach's Alpha coefficient. The instrument was deemed reliable if the Cronbach's Alpha value was greater than 0.60.

Data analysis was carried out using the Statistical Product and Service Solutions (SPSS) programme. Data analysis began with a descriptive analysis to describe the characteristics of each research variable based on the mean, percentage, and categories of respondents' answers. Subsequently, prerequisite tests namely normality and linearity tests were conducted to ensure that the data met the requirements for hypothesis testing.

Hypothesis testing was carried out using simple linear regression analysis to determine whether or not the application of educational psychology influences students' learning motivation. Decision-making was based on the significance value at a 5% (0.05) significance level. If the significance value was less than 0.05, the hypothesis was accepted, meaning there was a significant influence of the application of educational psychology on students' learning motivation. Conversely, if the significance value was greater than 0.05, the hypothesis was rejected.

Results

Validity Test

A pilot study to assess the validity of the questions was conducted on Wednesday, 9 April 2026, with a sample size of 40 participants. The questionnaire consisted of 20 statements. With a significance level of 5% and a sample size of 40, the critical value (rtabel) was 0.312. To facilitate the calculations, the researcher used IBM SPSS Statistics 26; the results are as follows:

Table 1. Results Of The Questionnaire Validity Test

Variable	No	rhitung	rtabel	Description
X	1.	0,814	0,312	Valid
	2.	0,715	0,312	Valid
	3.	0,740	0,312	Valid
	4.	0,596	0,312	Valid
	5.	0,496	0,312	Valid
	6.	0,675	0,312	Valid
	7.	0,699	0,312	Valid
	8.	0,589	0,312	Valid
	9.	0,671	0,312	Valid
	10.	0,719	0,312	Valid
	11.	0,557	0,312	Valid
	12.	0,678	0,312	Valid
	13.	0,441	0,312	Valid
	14.	0,615	0,312	Valid
	15.	0,877	0,312	Valid
	16.	0,649	0,312	Valid
	17.	0,780	0,312	Valid
	18.	0,803	0,312	Valid
	19.	0,748	0,312	Valid
	20.	0,879	0,312	Valid

Based on the validity test above, the 20 statements tested were found to be valid because the calculated r value was greater than the table r value, and there were no invalid questionnaires.

Reliability Test

Following the validity testing of the questionnaire, the instruments deemed valid were then subjected to reliability testing, with calculations carried out using SPSS version 26. The results are as follows:

Table 2. Test Of Reliability Of Variable X

Reliability Statistics

Cronbach's Alpha	N of Items
.854	10

Based on the results of the reliability test in the table above, it can be seen that the Cronbach's Alpha value of 0.854 is greater than 0.60, indicating a very high degree of reliability. This suggests that the Educational Psychology Application questionnaire is acceptable as a data collection tool and suitable for use.

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Table 3. Test Of Reliability Of Variable Y

Reliability Statistics

Cronbach's Alpha	N of Items
.886	10

Based on the results of the reliability test shown in the table above, the Cronbach's Alpha value of 0.886 is greater than 0.60, indicating a very high degree of reliability. This suggests that the learning motivation questionnaire is acceptable as a data collection tool and suitable for use.

Prerequisite Test

This study was conducted from 9 April 2026. The primary data obtained from this study were the results of questionnaires administered using a research instrument that had been validated and proven to be reliable.

Normality Test

A normality test was conducted as a prerequisite for hypothesis testing. The normality test was carried out on the 20 items of the questionnaire on the application of educational psychology and learning motivation, which had been distributed to the sample and from which data had been collected. The following are the results of the normality test, which was conducted using SPSS 26.

Table 4. Normality Test For X AND Y

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.26101317
Most Extreme Differences	Absolute	.130
	Positive	.103
	Negative	-.130
Test Statistic		.130
Asymp. Sig. (2-tailed)		.087[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Based on the results of the normality test for tables X and Y, it can be seen that the Kolmogorov–Smirnov test value indicates a significance level of 0.87 > 0.05. It can therefore be concluded that the data on the application of educational psychology and learning motivation are normally distributed.

Linearity Test

A linearity test was conducted to determine whether the two variables under investigation have a significant linear relationship or not. The following are the results of the linearity test carried out using SPSS version 26.

Table 5. Linearity Test For X AND Y

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
MOTIVASI * PENERAPAN	Between Groups	(Combined)	767.267	14	54.805	4.311	.001
		Linearity	670.366	1	670.366	52.729	.000
		Deviation from Linearity	96.901	13	7.454	.586	.842
	Within Groups		317.833	25	12.713		
	Total		1085.100	39			

Based on the results of the linearity test in the table, it can be seen that the Sig. Deviation value for the application of educational psychology to pupils' learning motivation is 0.842 > 0.05. It can therefore be concluded that the application of educational psychology to pupils' learning motivation has a linear relationship.

Hypothesis Testing

Table 6. Hypothesis Testing X AND Y

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.662	3.988		2.924	.006
	PENERAPAN	.758	.097	.786	7.837	<,001

a. Dependent Variable: MOTIVASI

a. If the Sig. (2-tailed) value is < 0.05, then Ho is rejected and Ha is accepted.
b. If the Sig. (2-tailed) value is > 0.05, then Ho is accepted and Ha is rejected.

From the results table above, it can be seen that the significance value (two-tailed) is 0.006 < 0.05. In accordance with the decision-making guidelines outlined above, H_0 is rejected and H_1 is accepted. It can therefore be concluded that the application of educational psychology has an effect on learning motivation.

Simple Linear Regression Test

A simple linear regression test was conducted to determine whether the two variables under examination have a significant influence on each independent and dependent variable. The following are the results of the simple linear regression test carried out using SPSS version 26.

Table 7. Simple Linear Regression Test For X AND Y

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	670.366	1	670.366	61.422	.000[b]
	Residual	414.734	38	10.914		
	Total	1085.100	39			

a. Dependent Variable: MOTIVASI

b. Predictors: (Constant), PENERAPAN

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From the table above, it can be seen that the calculated F-value is 61.422, with a significance level of 0.000 < 0.05; therefore, the regression model can be used to predict the participation variable. In other words, there is an effect of the variable 'application of educational psychology' (X) on the variable 'learning motivation' (Y).

Discussion

The research findings indicate that the application of educational psychology has a significant effect on students' learning motivation. This is evident from the results of the simple linear regression test, which showed a calculated F-value of 61.422 with a significance level of 0.000 < 0.05. This finding confirms that the research hypothesis is accepted, meaning that the application of educational psychology in the learning process plays a crucial role in enhancing students' learning motivation. The results of the prerequisite tests indicate that the data are normally distributed and the relationship between variables is linear; consequently, the analysis conducted meets statistical requirements and the research findings are reliable.

These results indicate that when teachers are able to apply the principles of educational psychology such as understanding students' characteristics, learning needs, interests, and individual differences students tend to demonstrate better learning motivation. The application of educational psychology enables teachers to create a more conducive, interactive, and enjoyable learning environment. Such conditions can foster a sense of comfort, attention, active engagement, and internal motivation for learning among students. Learning motivation is influenced not only by the teaching material but also by how teachers understand and treat students in accordance with their psychological aspects.

The findings of this study are further supported by the results of the validity and reliability tests of the instruments. All items were deemed valid as they had a calculated r value > table r value, whilst the Cronbach's Alpha values for the 'application of educational psychology' variable were 0.854 and for the 'learning motivation' variable 0.886, both indicating very high reliability. This means that the instrument used has been able to measure the research variables consistently. With a valid and reliable instrument, the research results are stronger in explaining the influence of the application of educational psychology on students' learning motivation.

When compared with other studies in the field of educational psychology, the findings of this study are essentially consistent with previous findings stating that learning approaches that take into account the psychological aspects of students can enhance learning motivation (Siswanto, 2021). Previous studies generally indicate that students are more motivated when teachers employ approaches aligned with their developmental stage, emotional needs, and learning styles (Novesar, 2020). In this context, the research findings reinforce the view that learning success is determined not only by mastery of the subject matter but also by the teacher's ability to understand the students' psychological conditions. This study makes a specific contribution by providing empirical evidence that the application of educational psychology is directly linked to learning motivation among Year 10 students, who were the subjects of this research.

These findings hold significant practical implications for teachers, schools, and educational administrators. For teachers, the research findings highlight the need to integrate principles of educational psychology into daily teaching activities, for example by understanding students' personalities, providing positive reinforcement, fostering empathetic communication, and selecting varied learning strategies. For schools, these findings can serve as a basis for enhancing teachers' pedagogical competencies through training or workshops on educational

psychology. These findings reinforce the view that learning motivation is an aspect heavily influenced by a learning environment that attends to students' psychological needs. Educational psychology is not merely a theoretical concept but has a tangible impact on teaching practice.

This study still has several limitations. Firstly, the sample size is relatively small and limited to a single group of students, meaning the findings cannot yet be broadly generalised to a larger population. Secondly, data were collected using a questionnaire, meaning respondents' answers were highly dependent on their honesty, perceptions, and the subjective state of each student whilst completing the questionnaire. Thirdly, this study examined only one independent variable the application of educational psychology even though learning motivation can also be influenced by other factors such as the family environment, peers, learning facilities, teaching methods, or the students' personal circumstances.

Based on these results and limitations, future research is recommended to involve a larger and more diverse sample so that the research findings have stronger generalisability. Subsequent studies could also include other variables suspected of influencing learning motivation, such as teaching styles, the learning environment, or parental support. A mixed-methods approach combining quantitative and qualitative methods could also be employed so that researchers not only determine the presence or absence of an influence but can also gain a deeper understanding of how the application of educational psychology affects students' learning motivation in daily teaching practice. It is hoped that future research findings will provide a more comprehensive picture of efforts to enhance students' learning motivation.

Based on the descriptive questionnaire data, there are three aspects of the application of educational psychology that received the highest scores from students and had a significant impact. Firstly, teachers' ability to understand students' individual characteristics, interests and needs received the highest rating, indicating that students felt the learning was more relevant and suited to their personal circumstances (Setyawati et al., 2022). Secondly, the application of learning strategies that encourage active engagement, such as discussions, projects, and problem-based learning, also received high scores, emphasising the importance of students' active participation in the learning process (Wahyudin, 2020).

Furthermore, aspects such as creating a conducive, safe, and supportive classroom atmosphere, as well as the provision of motivation and positive reinforcement by teachers, also received high ratings, contributing to an increase in students' enthusiasm and concentration during learning (Syafira et al., 2024). These findings confirm that a combination of an understanding of students' psychology, participatory learning strategies, and a supportive classroom environment are key factors in the application of educational psychology to enhance students' motivation to learn.

Conclusion

Based on the research findings, it can be concluded that the application of educational psychology has a significant effect on pupils' motivation to learn. The results of the simple linear regression test showed a significance value of 0.000 < 0.05, meaning the research hypothesis was accepted. These findings indicate that the better the principles of educational psychology are applied in the learning process, the higher the pupils' motivation to learn. Teachers' understanding of students' characteristics, needs, interests, and individual differences is a key factor in creating effective, interactive learning that encourages students' active engagement in the learning process. This study further reinforces the scientific

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understanding that educational psychology is not only important in theory but also makes a practical contribution to improving the quality of the learning process in schools.

However, this conclusion must be interpreted with caution and should not be broadly generalised, as the study was conducted on a limited sample and within a specific school context. The use of a questionnaire as the primary instrument means the data is highly dependent on respondents' perceptions and honesty, whilst learning motivation may also be influenced by other factors not examined in this study, such as the family environment, teaching methods, learning facilities, and students' social interactions. This study has advanced scientific knowledge by providing empirical evidence that the application of educational psychology is a key factor related to students' learning motivation, thereby serving as a foundation for further, broader and more in-depth research.

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