



The influence of pedagogical competence, lecturer communication style, and student involvement on student perceptions of lecturer teaching methods with learning motivation as a mediating variable (study on civil servants of UNJ East Jakarta Region)

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ABSTRACT

This study aims to analyze the role of learning motivation as a mediator variable in the influence of lecturers' pedagogical competence, lecturers' communication style, and student involvement on students' perceptions of lecturers' teaching methods for Civil Servant (PNS) students at Jakarta State University in East Jakarta. This study uses a quantitative approach with a survey method and explanatory research design. Data were collected through a Likert-based questionnaire distributed to 150 respondents. Data analysis was carried out using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS). This study aims to analyze the role of learning motivation as a mediator variable in the influence of lecturers' pedagogical competence, lecturers' communication style, and student involvement on students' perceptions of lecturers' teaching methods for Civil Servant (PNS) students at Jakarta State University in East Jakarta. This study uses a quantitative approach with a survey method and explanatory research design. Data were collected through a Likert-based questionnaire distributed to 150 respondents. Data analysis was carried out using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS).

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INTRODUCTION

Student perceptions of lecturers' teaching methods are a key indicator in assessing the quality of the learning process in higher education. These perceptions reflect how students evaluate instructional effectiveness, interaction quality, and overall learning experiences. A positive perception is often associated with higher academic achievement and learning satisfaction (Kurniawati, 2024; Zhao & Kuh, 2021; OECD, 2022).

Student perceptions are influenced not only by instructional methods but also by lecturer-related and student-related factors. Among lecturer-related factors, pedagogical competence plays a crucial role. Pedagogical competence refers to the lecturer's ability to design, implement, and evaluate learning effectively, which significantly affects student motivation and engagement (Guo et al., 2023; Nguyen, 2022; Kim & Kim, 2022). In addition, lecturer communication style is another essential factor that determines the effectiveness of instructional delivery and interaction quality. Clear, interactive, and empathetic communication has been shown to enhance student motivation and engagement (Suwarno et al., 2025; Mazer, 2022; Derakhshan et al., 2022).

From the student perspective, engagement is a fundamental element influencing learning outcomes and perceptions. Student engagement encompasses behavioral, emotional, and cognitive participation in learning activities (Fredricks et al., 2022; Kahu & Nelson, 2021). Students who are actively engaged tend to demonstrate better understanding, higher motivation, and more positive evaluations of teaching methods (Redmond et al., 2022; Li & Wong, 2023).

Furthermore, learning motivation is a critical internal factor that drives student learning behavior. According to Self-Determination Theory, motivation influences the intensity, persistence, and direction of learning activities (Ryan & Deci, 2021; Reeve, 2021). Students with higher intrinsic motivation are more likely to perceive learning experiences positively and engage deeply with instructional content (Howard et al., 2021; Martin, 2023).

Although previous studies have examined the influence of pedagogical competence, communication style, and student engagement on learning outcomes, most studies treat these variables as independent predictors (Guo et al., 2023; Han & Yin, 2022). Moreover, studies investigating learning motivation as a mediating variable are still limited and often focus on only one or two predictors (Kurniawati, 2024; Liu et al., 2023). This indicates a research gap in integrating these variables into a comprehensive model.

Despite previous studies examining these variables, a significant research gap remains regarding the integration of external factors (such as pedagogical competence, communication style, and student engagement) and internal factors (such as learning motivation) into a single comprehensive model. The lack of such integration limits the ability to fully understand the complex interplay between instructional practices and students' psychological processes. Consequently, it becomes difficult to capture how external teaching-related variables simultaneously influence internal motivational mechanisms and ultimately shape student perceptions. Addressing this gap is essential to develop a more holistic and theoretically grounded model of learning effectiveness.

Therefore, this study aims to analyze the influence of pedagogical competence, lecturer communication style, and student engagement on student perceptions of teaching methods, with learning motivation as a mediating variable. This study contributes theoretically by integrating external and internal learning factors into a unified framework and empirically by examining civil servant students at Jakarta State University, a context that has received limited attention in previous research.

RESEARCH METHOD

This study employed a quantitative approach with a survey method, aiming to examine the causal relationships between variables and analyze the role of learning motivation as a mediating variable in the influence of lecturers' pedagogical competence, communication style, and student engagement on students' perceptions of their teaching methods. The research design employed was explanatory research, focusing on hypothesis testing to empirically explain the relationships between variables through inferential statistical analysis (Hair et al., 2021). This approach was chosen because it provides an objective picture of the structural relationships between variables in the research model.

The population in this study were civil servant (PNS) students at the Jakarta State University (UNJ) in East Jakarta who were currently studying in the current semester. The sampling technique used probability sampling with the proportionate stratified random sampling method, so that every student from various faculties had an equal opportunity to become a respondent. The sample size was determined based on Hair et al. (2021), who suggested that the sample size in Structural Equation Modeling (SEM) analysis be at least 5–10 times the number of indicators. Therefore, in this study, 150 respondents were determined to meet the sample adequacy criteria.

The variables in this study consist of independent variables, namely lecturer pedagogical competence, lecturer communication style, and student engagement, mediator variables, namely learning motivation, and dependent variables, namely student perceptions of lecturer teaching methods. Lecturer pedagogical competence is measured through the ability to design, implement, and evaluate learning (Guo et al., 2023), while lecturer communication style is measured through clarity of delivery, openness, and interactivity (Suwarno et al., 2025). Student engagement reflects active participation both cognitively, emotionally, and behaviorally in the learning process (Fredricks et al., 2022). Learning motivation is measured through indicators of interest, effort, and persistence in learning (Ryan & Deci, 2021), while student perceptions of lecturer teaching methods are measured through the level of understanding, satisfaction, and effectiveness of learning perceived by students (Kurniawati, 2024).

Data collection was conducted using a closed-ended questionnaire with a five-point Likert scale, ranging from strongly disagree to strongly agree. The questionnaire was distributed online via Google Forms to respondents who met the research criteria. Prior to use, the research instrument was tested for validity and reliability. Validity was assessed using factor loading values, which were expected to be greater than 0.70. Reliability was measured using Cronbach's Alpha and Composite Reliability, with a minimum value of 0.70. Furthermore, construct validity was tested using Average Variance Extracted (AVE), with a minimum value of 0.50 (Hair et al., 2021).

The data analysis technique used Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) with the assistance of SmartPLS software. The analysis was conducted through an outer model evaluation to test construct validity and reliability, and an inner model evaluation to examine the relationship between variables through path coefficient, R-square, and predictive relevance (Q^2) values. Significance testing was conducted using bootstrapping techniques to obtain t-statistic and p-value values. Furthermore, a mediation test was conducted to determine the role of learning motivation in mediating the relationship between the independent and dependent variables (Hair et al., 2021).

RESULTS AND DISCUSSION

Respondent Characteristics

This study involved 150 respondents who were civil servant (PNS) students at the Jakarta State University (UNJ) in East Jakarta who were attending lectures in the current semester. Based on gender, respondents consisted of 92 females (61.3%) and 58 males (38.7%). Based on semester level, the majority of respondents were in semesters 4–6, as many as 87 students (58%), indicating that respondents were dominated by students who had sufficient learning experience in the lecture process.

Descriptive Analysis of Variables

Table 1. Descriptive analysis of variables

Variables	Mean	Category
Pedagogical Competence of Lecturers	4.12	Tall
Lecturer Communication Style	4.05	Tall

Variables	Mean	Category
Student Involvement	3.98	Tall
Motivation to learn	4.08	Tall
Student perceptions of lecturers' teaching methods	4.10	Tall

Source: Processed data (2026), Smart PLS Version 4.1.1.6

The results of the descriptive analysis showed that all research variables had average values in the high category. Lecturers' pedagogical competence had an average value of 4.12, lecturers' communication style of 4.05, student engagement of 3.98, learning motivation of 4.08, and students' perceptions of lecturers' teaching methods of 4.10. The average score in the high category (≥ 3.80) indicates that respondents have a positive perception of the lecturers' pedagogical competence and communication style and demonstrate a good level of engagement and motivation in learning. This indicates that the ongoing learning process has been effective and conducive.

Results of Measurement Model Test (Outer Model)

a. Average Variance Extracted (AVE)

Table 2. Average variance extracted

Variables	AVE
Pedagogical Competence	0.65
Communication Style	0.63
Student Involvement	0.61
Motivation to learn	0.66
Student perceptions of lecturers' teaching methods	0.68

Source: Processed data (2026), Smart PLS Version 4.1.1.6

The results of convergent validity testing indicate that all constructs have an Average Variance Extracted (AVE) value above 0.50, namely pedagogical competence (0.65), communication style (0.63), student involvement (0.61), learning motivation (0.66), and student perceptions of lecturers' teaching methods (0.68). This indicates that all indicators are able to reflect the latent constructs well. Furthermore, the results of the reliability test show that all variables have Cronbach's Alpha and Composite Reliability values above 0.70, so it can be concluded that the research instrument has high reliability and is consistent in measuring the research variables.

b. Reliability Test

Table 3. Reliability test

Variables	Cronbach's Alpha
Pedagogical Competence	0.89
Communication Style	0.87
Student Involvement	0.85
Motivation to learn	0.90
Student perceptions of lecturers' teaching methods	0.91

Source: Processed data (2026), Smart PLS Version 4.1.1.6

All variables had Cronbach's Alpha and Composite Reliability values above 0.70, thus concluding that the research instrument has excellent reliability. This means the measuring instrument used consistently measures the research constructs.

Inner Model Test Results (Structural Model)

Evaluation of the inner model is done by looking at the R-square and path coefficient values.

a. R-Square Value

Table 4. Inner model evaluation

Variables	R ²
Motivation to learn	0.68
Student perception	0.72

Source: Processed data (2026), Smart PLS Version 4.1.1.6

The R-square value indicates that the model has strong predictive ability in explaining endogenous variables. The R-square value for the learning motivation variable of 0.68 indicates that 68% of the variation in learning motivation can be explained by the lecturer's pedagogical competence, communication style, and student engagement. Meanwhile, the R-square value of 0.72 for the variable of student perception of the lecturer's teaching method indicates that the variable can be explained by the lecturer's pedagogical competence, communication style, student engagement, and learning motivation. This indicates that the research model has strong (substantial) explanatory power.

The R-square values of 0.68 for learning motivation and 0.72 for student perception indicate that the model has substantial explanatory power. According to Hair et al., (2021), R-square values above 0.67 can be categorized as strong, suggesting that the model effectively explains a large proportion of variance in the dependent variables. This implies that the selected predictors – pedagogical competence, communication style, and student engagement – are highly relevant in explaining learning motivation, while the inclusion of learning motivation further strengthens the model in explaining student perceptions. Moreover, these results indicate that the model is robust and has good predictive accuracy, although there remains a small proportion of unexplained variance (32% and 28%), which may be attributed to other factors not included in the model, such as learning environment, individual differences, or institutional support.

b. Hypothesis Testing (Path Coefficient)

Table 5. Hypothesis testing

Connection	Coefficient	T-Statistic	P-Value	Information
Pedagogical Competence → Learning Motivation	0.32	4.85	0,000	Significant
Communication Style → Learning Motivation	0.29	4.12	0,000	Significant
Student Engagement → Learning Motivation	0.35	5.21	0,000	Significant
Learning Motivation → Perception of Teaching Methods	0.61	9.45	0,000	Significant

Source: Processed data (2026), Smart PLS Version 4.1.1.6

The test results show that all relationships between variables are positive and significant. Lecturer pedagogical competence has a positive effect on learning motivation ($\beta = 0.32$; $t = 4.85$; $p < 0.001$), lecturer communication style has a positive effect on learning motivation ($\beta = 0.29$; $t = 4.12$; $p < 0.001$), and student involvement has a positive effect on learning motivation ($\beta = 0.35$; $t = 5.21$; $p < 0.001$). In addition, learning motivation has a positive and significant effect on students' perceptions of lecturers' teaching methods ($\beta = 0.61$; $t = 9.45$; $p < 0.001$). The high coefficient value indicates that learning motivation is the most dominant variable in influencing students' perceptions of lecturers' teaching methods.

Mediation Test Results

Table 6. Mediation test results

Mediation Relationship	Coefficient	T-Statistic	P-Value	Information
Pedagogical Competence → Learning Motivation → Student Perception of Lecturer Teaching Methods	0.20	3.98	0,000	Significant Mediation
Communication Style → Learning Motivation → Student Perception of Lecturer Teaching Methods	0.18	3.65	0,000	Significant Mediation
Student Engagement → Learning Motivation → Student Perception of Lecturer Teaching Methods	0.21	4.22	0,000	Significant Mediation

Source: Processed data (2026), Smart PLS Version 4.1.1.6

The results of this study indicate that lecturers' pedagogical competence has a positive and significant effect on students' learning motivation. This finding confirms that the ability of lecturers to design structured, interactive, and student-centered learning environments can stimulate students' intrinsic motivation. This result is consistent with constructivist learning theory, which emphasizes the importance of meaningful learning experiences in enhancing motivation (Schunk & DiBenedetto, 2021; Kim & Kim, 2022). Previous studies have also shown that pedagogical competence significantly contributes to student motivation and learning outcomes (Guo et al., 2023; Nguyen, 2022).

Furthermore, lecturer communication style was found to significantly influence learning motivation. Effective communication, characterized by clarity, openness, and responsiveness, fosters a supportive learning environment that enhances student motivation. This finding aligns with interpersonal communication theory, which highlights the role of communication in shaping learning interactions (DeVito, 2021). Empirical studies also confirm that teacher communication behaviors significantly affect student motivation and engagement (Mazer, 2022; Derakhshan et al., 2022; García-Martínez et al., 2021).

Student engagement emerged as the most dominant factor influencing learning motivation. This finding reinforces the student engagement theory, which posits that active participation in learning activities is a key determinant of motivation and academic success (Fredricks et al., 2022; Kahu & Nelson, 2021). Research by Redmond et al. (2022) Redmond et al. (2022) and Li and Wong (2023) Li and Wong (2023) also supports the strong relationship between engagement and motivation, indicating that students who are cognitively and emotionally involved tend to demonstrate higher levels of motivation. Additionally, engagement and motivation may have a reciprocal relationship, where each reinforces the other (Eccles & Wigfield, 2021; Wang & Eccles, 2021).

The results also show that learning motivation has the strongest influence on students' perceptions of lecturers' teaching methods. This finding is consistent with Self-Determination Theory, which emphasizes that intrinsic motivation plays a central role in shaping positive learning experiences (Ryan & Deci, 2021; Reeve, 2021). Students with higher motivation are more likely to perceive teaching methods as effective and satisfying (Howard et al., 2021; Martin, 2023). This suggests that motivation is not only an outcome but also a key determinant of perception.

Moreover, learning motivation was proven to act as a significant mediating variable in the relationship between pedagogical competence, communication style, student engagement, and student perceptions. This finding supports mediation theory, which suggests that internal psychological factors serve as mechanisms linking external factors to outcomes (Hayes, 2022). Previous studies also highlight the mediating role of motivation in educational settings (Jang et al., 2021; Liu et al., 2023). However, some studies indicate that the mediation effect may vary depending on contextual factors such as learning environment and student characteristics (Zhang et al., 2022).

Overall, the findings of this study emphasize that internal factors, particularly learning motivation, play a more dominant role than external factors in shaping student perceptions. This implies that improving teaching quality should not only focus on enhancing lecturer competence but also on fostering student motivation and engagement. These findings are consistent with recent literature emphasizing the integration of cognitive, emotional, and behavioral factors in improving learning outcomes (Han & Yin, 2022; Sun & Rueda, 2022).

CONCLUSION

Based on research findings on civil servant (PNS) students at Jakarta State University in East Jakarta, it can be concluded that lecturers' pedagogical competence, communication style, and student engagement have a positive and significant influence on learning motivation. Of these three variables, student engagement is the most dominant factor in increasing learning motivation.

Furthermore, learning motivation was shown to have a positive and significant influence on students' perceptions of lecturers' teaching methods and was the most powerful variable in explaining these perceptions. These findings indicate that learning motivation is a key factor in shaping students' assessments of learning quality.

The results of the study also showed that learning motivation acts as a partial mediator in the relationship between lecturers' pedagogical competence, lecturers' communication style, and student engagement on students' perceptions of lecturers' teaching methods. Thus, the influence of independent variables on students' perceptions occurs not only directly, but also through increased learning motivation as an internal mechanism for students.

Overall, this study confirms that students' perceptions of lecturers' teaching methods are influenced by the interaction between external factors, namely lecturer quality and student engagement, and internal factors, such as learning motivation. Therefore, improving the quality of learning in higher education needs to focus not only on enhancing lecturer competence but also on strategies that can encourage sustained student engagement and motivation.

This study is limited by its sample size, limited to a single institution, and its use of a cross-sectional approach, which is unable to capture the dynamics of student behavior change longitudinally. Therefore, future research is recommended to expand the sample size and use a longitudinal approach to obtain more comprehensive results.

Practically, the results of this study indicate that universities need to improve the pedagogical competence of lecturers and develop effective communication styles to create more optimal learning interactions. Furthermore, increasing student engagement should be a top priority, as it has been proven to be the most dominant factor in increasing learning motivation.

Theoretically, this study strengthens the role of learning motivation as a mediating variable in the relationship between external learning factors and students' perceptions of lecturers' teaching methods. These findings also expand the literature by integrating pedagogical competence, lecturer communication style, and student engagement into one comprehensive research model.

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