DOI: https://doi.org/10.71312/mrscholar.v2i1.1009 ISSN: 3090-8922

MRSCHOLAR
Multidisciplinary Research Studies in Social Sciences

THE EFFECT OF LECTURER PEDAGOGICAL COMPETENCE ON LEARNING MANAGEMENT: THE MEDIATING ROLE OF LEARNING INNOVATION

Yudha Prapantja[1], Ahmad Suryadi[2]

[1,2]Universitas Muhammadiyah Jakarta, Indonesia

Corresponding author: yudhaantja@gmail.com

Received May 5, 2026; Accepted May 9, 2026
Available online May 11, 2026

ABSTRACT

Effective learning management is vital for higher education quality. This study examines the impact of lecturers' pedagogical competence on learning management and the mediating role of learning innovation. A quantitative design was employed, analyzing data from 85 students at Universitas Muhammadiyah Jakarta using Partial Least Squares Structural Equation Modeling (PLS-SEM).Results indicate that pedagogical competence has a positive and significant effect on learning management, underscoring its central role in instructional practice. Conversely, the mediating effect of learning innovation was statistically insignificant. These findings suggest that innovation alone, without a strong pedagogical foundation, does not independently improve learning effectiveness. The study concludes that institutions should prioritize the development of pedagogical competence as the primary determinant of effective learning systems, while treating innovation as a complementary factor

Keywords: Pedagogical Competence, Learning Management, Learning Innovation, Higher Education

INTRODUCTION

The transformation of higher education in the digital era has significantly reshaped the role of universities as key institutions responsible for developing competitive human resources. Universities are now viewed as dynamic ecosystems that must produce adaptive and innovative graduates. In this context, the effectiveness of learning management becomes a critical determinant of educational quality and institutional performance. This emphasizes a broader organizational trend where strategic management functions as the primary driver of institutional productivity and service effectiveness, a phenomenon similarly observed in other complex service sectors like healthcare, where governance directly impacts organizational outcomes and sustainability (Muchtiar et al., 2026). Consequently, just as healthcare management must evolve to ensure service quality, universities must refine their learning

management frameworks to remain competitive

Learning management represents a systematic and integrated process that includes the planning, organization, implementation, and evaluation of learning activities. It serves as a framework through which educational objectives are translated into measurable outcomes (Nguyen et al., 2022). However, despite its importance, many higher education institutions still struggle with ineffective learning practices. Traditional teaching approaches that emphasize theoretical knowledge continue to dominate, often resulting in passive learning environments and limited student engagement (Rahman et al., 2022).

These challenges highlight the central role of lecturers as key actors in the learning process. Lecturers are not only responsible for delivering content but also for designing meaningful learning experiences that facilitate student engagement and knowledge application. In this regard, pedagogical competence becomes a crucial factor in ensuring the effectiveness of learning management (Saks, 2022; Hassan, 2024). Pedagogical competence enables lecturers to understand student characteristics, apply appropriate instructional strategies, and evaluate learning outcomes in a systematic manner (Nguyen et al., 2023).

In parallel, the emergence of learning innovation has introduced new opportunities for improving educational practices. The integration of digital technologies, interactive teaching methods, and student-centered approaches has been widely promoted as a means to enhance learning effectiveness (Cavus, 2021; Kim et al., 2022). Learning innovation is believed to increase student engagement and facilitate deeper understanding of learning materials (Wijaya et al., 2023).

However, the relationship between pedagogical competence and learning innovation is not always straightforward. While innovation is often considered a key driver of educational improvement, its effectiveness largely depends on how well it is integrated into pedagogical practices (Lee et al., 2021). Innovation that is implemented without a strong pedagogical foundation may result in superficial changes that do not significantly improve learning outcomes (Nguyen et al., 2022).

Empirical findings regarding the mediating role of learning innovation remain inconsistent. Some studies suggest that innovation strengthens the relationship between competence and learning outcomes, while others indicate that its impact is limited when not supported by strong teaching capabilities (Kim et al., 2022; Pratama & Sari, 2024). This inconsistency highlights a critical research gap that needs to be addressed.

Therefore, this study aims to examine the effect of lecturers' pedagogical competence on learning management and to analyze whether learning innovation serves as a mediating variable in this relationship. By doing so, this study contributes to the development of a more comprehensive understanding of how competence and innovation interact in shaping effective learning systems in higher education.

LITERATURE REVIEW

Learning Management

Learning management refers to a systematic process involving the planning, organization, implementation, and evaluation of learning activities to achieve educational objectives effectively. It represents a critical function in higher education, as it determines how learning experiences are structured and delivered.

Learning management is a systematic process that involves planning, organizing, implementing, and evaluating learning activities to achieve educational objectives effectively (Santos & Castro, 2021). In the context of higher education, learning management plays a crucial role in ensuring that instructional processes are well-structured and aligned with expected learning outcomes (Nguyen et al., 2022).

Effective learning management requires the integration of several key components, including learning objectives, teaching strategies, learning materials, and assessment methods (Lee et al., 2021). When these components are properly aligned, the learning process becomes more meaningful and facilitates deeper student understanding. Conversely, poorly managed learning environments often lead to passive learning and reduced student engagement (Rahman et al., 2022).

In addition, the development of technology has significantly influenced learning management practices. The integration of digital learning environments enables more flexible and interactive learning experiences (Cavus, 2021). Therefore, lecturers are required to adapt their teaching strategies to accommodate both conventional and digital learning approaches (Kim et al., 2022).

Pedagogical Competence

The business purpose requirement arose from case law surrounding government challenges to corporate reorganizations. Today, its use is broader—and not limited to corporate reorganizations. Corporate divisions are also scrutinized as tax-free reorganizations under the Business Purpose Test because they can easily be used in attempts to convert dividend distributions into capital gains distributions

Pedagogical competence refers to the ability of lecturers to design, implement, and evaluate learning processes effectively (Hassan, 2024). It is one of the most important competencies in higher education, as it directly influences teaching effectiveness and student learning outcomes (Nguyen et al., 2023).

This competence includes several essential aspects, such as understanding student characteristics, developing appropriate teaching strategies, managing classroom interactions, and conducting effective evaluations (Sahoo et al., 2022). Lecturers who possess strong pedagogical competence are better able to create engaging and student-centered learning environments (Singh et al., 2024).

Furthermore, pedagogical competence enables lecturers to adapt to changes in the educational environment, including technological advancements and evolving student needs (Zhang et al., 2023). As a result, lecturers with high pedagogical competence are more capable of improving the overall quality of the learning process (Al-Omari & Okasheh, 2022).

Learning Innovation

Learning innovation refers to the application of new ideas, methods, or technologies in the learning process to improve its effectiveness (Rogers, 2020; Cavus, 2021). In higher education, innovation is often associated with the use of digital tools, interactive learning methods, and student-centered approaches (Kim & Lee, 2022).

The rapid development of technology has encouraged the adoption of innovative learning practices, such as online learning platforms and multimedia-based instruction (Nguyen et al., 2022). These innovations are expected to enhance student engagement, motivation, and learning outcomes (Wijaya et al., 2023).

However, the effectiveness of learning innovation largely depends on how well it is implemented. Innovation that is not supported by strong pedagogical competence may not significantly improve learning effectiveness (Lee et al., 2021). Therefore, the successful implementation of learning innovation requires a balanced integration of technology and instructional design (Pratama & Sari, 2024).

Relation Between Variable

Pedagogical competence is considered a key factor influencing learning management. Lecturers with strong pedagogical competence are more capable of organizing and implementing effective learning processes, which ultimately improves learning management

(Saks, 2022; Zhang et al., 2023).

In addition, learning innovation is expected to enhance the effectiveness of learning management by introducing new and engaging teaching approaches (Kim et al., 2022). However, its role as a mediating variable remains uncertain, as its effectiveness depends on the extent to which it is integrated into pedagogical practices (Nguyen et al., 2022).

METHODOLOGY

This study employs doctrinal legal research, which is characterized by a critical and systematic examination of legal rules, principles, and doctrines. According to Abdulkadir Muhammad, doctrinal research focuses on the inventory of positive law, legal discovery in concrete cases, legal systematics, and the level of synchronization between various legal instruments. This method is further defined as an "internal" approach to law, where the researcher seeks to clarify and improve the existing legal system through the interpretation of norms (Vranken, 2010).

This study employed a quantitative research design using a survey approach. Quantitative research was chosen because it allows for the analysis of relationships between variables using statistical methods and provides objective and measurable results.

The population of this study consisted of 108 students at Universitas Muhammadiyah Jakarta. The sample was determined using proportional random sampling, resulting in a total of 85 respondents.

Data were collected through structured questionnaires designed to measure lecturers' pedagogical competence, learning innovation, and learning management. The data were then analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach, which is suitable for analyzing complex relationships between variables.

The hypotheses tested in this study are as follows:
H1: Lecturer pedagogical competence has a direct positive effect on learning management.
H2: Lecturer pedagogical competence has an indirect positive effect on learning management through learning innovation.

RESULTS

This study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the proposed hypotheses. The analysis consisted of two main stages: evaluation of the measurement model and evaluation of the structural model (Hair et al., 2017).

Table 1 Cronbach's Alpha and Convergent Validity

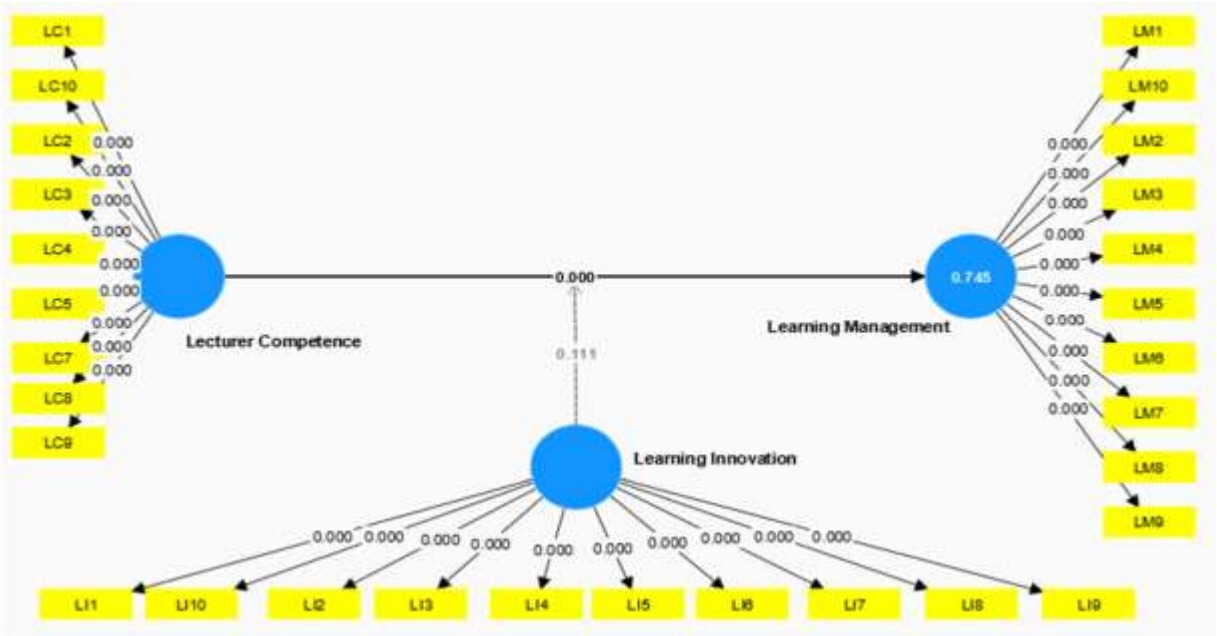
Variable	Items	Loading	Cronbach's Alpha	Composite Reliability	AVE
Lecturer Pedagogical Competence	LC1	0.809	**0.867**	**0.879**	**0.490**
	LC2	0.812			
	LC3	0.588			
	LC4	0.552			
	LC5	0.656			
	LC6	0.484			
	LC7	0.743			
	LC8	0.687			
	LC9	0.629			
	LC10	0.751			
Learning Innovation	LI1	0.769	**0.863**	**0.873**	**0.452**

Variable	Items	Loading	Cronbach's Alpha	Composite Reliability	AVE
	LI2	0.648			
	LI3	0.665			
	LI4	0.656			
	LI5	0.580			
	LI6	0.697			
	LI7	0.738			
	LI8	0.680			
	LI9	0.509			
	LI10	0.738			
Learning Management	LM1	0.791	**0.870**	**0.886**	**0.464**
	LM2	0.669			
	LM3	0.667			
	LM4	0.705			
	LM5	0.626			
	LM6	0.574			
	LM7	0.686			
	LM8	0.572			
	LM9	0.674			
	LM10	0.807			

Source: Processed by the author

The measurement model results indicate that most factor loadings exceed the recommended threshold, demonstrating that the indicators adequately represent their respective constructs. Although one indicator falls slightly below the threshold, it is still considered acceptable within the context of exploratory research (Hair et al., 2019).

Figure 1. Path Model Results (p-value)



Source: Processed by the author

Furthermore, the Average Variance Extracted (AVE) values indicate that the constructs achieve acceptable levels of convergent validity (Sarstedt et al., 2020). Composite reliability values for all variables exceed the recommended threshold, confirming the internal consistency of the measurement model (Hair et al., 2017).

Tabele 2. Discriminant Validity

Variable	Learning Innovation	Learning Management	Lecturer Pedagogical Competence
Learning Innovation			
Learning Management	0.913		
Lecturer Pedagogical Competence	0.914	0.895	
Learning Innovation x Lecturer Pedagogical Competence	0.280	0.181	0.288

Source: Processed by the author

To test the reliability of the construct, it is proven reliable if the composite reliability output value is higher than the value of 0.7 (composite reliability > 0.7). According to Hair et al. (2017), that composite reliability should exceed 0.7 (CR > 0.7), so that a construct can be declared consistent

Table 3. Reliability

Variable	Cronbach's Alpha	Composite Reliability	Description
Learning Innovation	0.863	0.891	Reliable
Learning Management	0.870	0.895	Reliable
Lecturer Pedagogical Competence	0.867	0.895	Reliable

Source: Processed by the author

The structural model evaluation shows that pedagogical competence has a positive and significant effect on learning management. This result indicates that lecturers with higher pedagogical competence are more effective in managing learning processes (Zhang et al., 2023).

However, the mediating effect of learning innovation is not statistically significant, indicating that learning innovation does not play a substantial role in mediating the relationship between pedagogical competence and learning management (Kim et al., 2022).

The findings of this study indicate that pedagogical competence plays a significant role in improving learning management. Lecturers who possess strong pedagogical competence are better able to design, implement, and evaluate learning processes effectively (Saks, 2022). This supports the view that lecturers are key actors in determining the success of the learning process (Al-Omari & Okasheh, 2022).

Pedagogical competence enables lecturers to create structured and engaging learning environments, which contribute to improved student participation and learning outcomes (Nguyen et al., 2023). Therefore, enhancing lecturers' pedagogical competence should be a priority for higher education institutions.

On the other hand, the results show that learning innovation does not significantly mediate the relationship between pedagogical competence and learning management. This

suggests that innovation alone is not sufficient to improve learning effectiveness (Nguyen et al., 2022).

One possible explanation is that learning innovation is not yet optimally implemented. In many cases, innovation is limited to the use of technology without substantial improvements in instructional design (Lee et al., 2021). As a result, its impact on learning management remains limited.

The findings of this study indicate that pedagogical competence plays a significant role in improving learning management. The structural model evaluation confirms that pedagogical competence has a positive and significant effect on learning management, demonstrating that lecturers with higher pedagogical competence are more effective in managing learning processes. Lecturers who possess strong pedagogical competence are better able to design, implement, and evaluate learning processes effectively (Saks, 2022). This supports the view that lecturers are key actors in determining the success of the learning process (Al-Omari & Okasheh, 2022). Pedagogical competence enables lecturers to create structured and engaging learning environments, which contribute to improved student participation and learning outcomes (Nguyen et al., 2023). Therefore, enhancing lecturers' pedagogical competence should be a priority for higher education institutions.

On the other hand, the results show that learning innovation does not significantly mediate the relationship between pedagogical competence and learning management. The structural model evaluation reveals that this mediating effect is statistically insignificant, indicating that learning innovation does not play a substantial role in mediating the relationship between these variables. This suggests that innovation alone is not sufficient to improve learning effectiveness (Nguyen et al., 2022). One possible explanation is that learning innovation is not yet optimally implemented. In many cases, innovation is limited to the use of technology without substantial improvements in instructional design (Lee et al., 2021). As a result, its impact on learning management remains limited. These findings highlight the importance of focusing not only on innovation but also on strengthening pedagogical competence as the foundation of effective learning management (Zhang et al., 2023).

CONCLUSIONS

Conclusion

This study aimed to examine the effect of lecturers' pedagogical competence on learning management, as well as the mediating role of learning innovation in the context of higher education. The findings provide important insights into the factors that contribute to the effectiveness of learning processes.

The results indicate that lecturers' pedagogical competence has a positive and significant effect on learning management. This finding confirms that the ability of lecturers to design, implement, and evaluate instructional activities plays a crucial role in ensuring the effectiveness of the learning process. Lecturers with strong pedagogical competence are better able to create structured, engaging, and student-centered learning environments, which ultimately enhance learning outcomes.

However, the study also reveals that learning innovation does not significantly mediate the relationship between pedagogical competence and learning management. Although learning innovation contributes positively, its impact is not strong enough to function as a mediating variable. This suggests that innovation alone is not sufficient to improve learning effectiveness without being supported by strong pedagogical competence.

Overall, the findings highlight that pedagogical competence remains the primary determinant of effective learning management, while learning innovation serves as a complementary factor. Therefore, improving pedagogical competence should be prioritized in order to enhance the quality of learning in higher education.

Recommendations

Based on the findings of this study, several recommendations can be proposed for both practical implementation and future research.

a. Practical Recommendations

First, higher education institutions should prioritize the development of lecturers' pedagogical competence through continuous professional development programs, training workshops, and teaching evaluations. Strengthening pedagogical competence will directly improve the effectiveness of learning management.

Second, institutions should ensure that learning innovation is implemented in a more structured and meaningful way. Innovation should not be limited to the use of technology, but must also involve improvements in instructional design, teaching strategies, and student engagement approaches.

Third, universities should provide adequate support in terms of infrastructure, digital tools, and institutional policies to facilitate the effective integration of innovation into the learning process. Without proper support, innovation initiatives may not yield optimal results.

b. Theoritical Recommendations

From a theoretical perspective, this study suggests that future research should further explore the role of learning innovation in different contexts and with additional variables. Researchers may consider including factors such as organizational support, digital readiness, or learning culture to better understand the conditions under which innovation becomes effective.

In addition, future studies are encouraged to use larger and more diverse samples to improve the generalizability of the findings. Expanding the research scope to multiple institutions or different educational levels may provide more comprehensive insights.

c. Managerial Implications

From a theoretical perspective, this study suggests that future research should further explore the role of learning innovation in different contexts and with additional variables. Researchers may consider including factors such as organizational support, digital readiness, or learning culture to better understand the conditions under which innovation becomes effective.

In addition, future studies are encouraged to use larger and more diverse samples to improve the generalizability of the findings. Expanding the research scope to multiple institutions or different educational levels may provide more comprehensive insights.

REFERENCES

Al Azis, B. P., et al. (2018). Penggabungan usaha dan analisis perpajakan yang dilakukan oleh PT Gunawan Dianjaya Steel Tbk tahun 2018. Jurnal Educoretax, 2(3).

Avidov-Ungar, O., & Forkosh-Baruch, A. (2018). Professional Identity of Teacher Educators in The Digital Era in Light of Demands of Pedagogical Innovation. Teaching and Teacher Education, 73, 183-191.

Buchari, A. (2018). Peran Guru Dalam Pengelolaan Pembelajaran. Jurnal Ilmiah Iqra' Fakultas Tarbiyah dan Ilmu Keguruan [FTIK] IAIN Manado, 12(2).

Cavus, N., & Alhih, M. S. (2014). Learning Management Systems Use in Science Education. Procedia-Social and Behavioral Sciences, 143, 517-520.

Conde, M. A., et al. (2014). Perceived Openness of Learning Management Systems by Students and Teachers in Education and Technology Courses. Computers in Human Behavior, 31, 517-526.

Csikszentmihalyi, M. (2012). The creative personality. Journal of Psychology of Academic Research Library.

Darryanto, R. (2000). Analisis rekapitalisasi sebagai program penyehatan perbankan di Indonesia pada Bank BPD Jawa Tengah [Master's thesis, Universitas Diponegoro].
Director General of Taxes. (2021). Regulation Number PER-03/PJ/2021 concerning Procedures for Submitting and Issuing Decisions regarding the Use of Book Value for the Transfer and Acquisition of Assets.
Government of Indonesia. (2007). Law Number 40 of 2007 concerning Limited Liability Companies.
Government of Indonesia. (2011). Law Number 5 of 2011 concerning Public Accountants.
Government of Indonesia. (2015). Government Regulation Number 20 of 2015 concerning Public Accounting Practice.
Government of Indonesia. (2022). Law Number 1 of 2022 concerning Financial Relations between the Central Government and Regional Governments.
Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.). Sage.
Harijanto, B. (2022). Kajian yuridis ketentuan perpajakan mengenai penggunaan nilai buku dalam penggabungan Perseroan Terbatas [Master's thesis, Universitas Diponegoro].
Helmalia. (2016). Analisis strategi akuisisi dan restrukturisasi dalam bisnis perusahaan. Al Masraf: Jurnal Lembaga Keuangan dan Perbankan, 1(1), 49.
Husnan, S. (2002). Dasar-dasar Teori Portofolio dan Analisis Sekuritas (3rd ed.). AMP YKPN.
Hutapea, P., & Thoha, N. (2008). Kompetensi Plus. Gramedia.
IBFD. (2015). International Tax Glossary. International Bureau of Fiscal Documentation.
Klaeijsen, A., Vermeulen, M., & Martens, R. (2017). Teachers' Innovative Behaviour: The Importance of Basic Psychological Need Satisfaction, Intrinsic Motivation, and Occupational Self-Efficacy. Scandinavian Journal of Educational Research.
Mardiani, N. (2015). Pengaruh kompetensi pedagogik dosen terhadap pengelolaan kelas. Jurnal Kesehatan, 6(2), 733-739.
Marzuki, P. M. (2017). Penelitian Hukum: Edisi Revisi [Legal Research: Revised Edition]. Kencana.
Minister of Finance. (2017). Minister of Finance Regulation (PMK) Number 52/PMK.010/2017 concerning the Use of Book Value for the Transfer and Acquisition of Assets.
Minister of Finance. (2021). Minister of Finance Regulation (PMK) Number 56/PMK.010/2021 concerning the Use of Book Value for the Transfer and Acquisition of Assets.
Muchtiar, M., Narimawati, U., & Kurniawan, B. (2026). The role of hospital management in productivity, revenue, efficiency, and effectiveness of JKN patient services: A case study of a private hospital (XYZ) in Indonesia, 2023–2024. Multidisciplinary Research Studies in Social Sciences, 2(1), 39–50.
Muhammad, A. (2004). Hukum dan Penelitian Hukum [Law and Legal Research]. Citra Aditya Bakti.
Mulyasa, E. (2003). Kurikulum Berbasis Kompetensi: Konsep, Karakteristik, dan Implementasi. PT Remaja Rosdakarya.
Mulyasa, E. (2014). Manajemen dan Kepemimpinan Kepala Sekolah. Bumi Aksara.
Naway, F. A. (2016). Strategi Pengelolaan Pembelajaran. Ideas Publishing.
Palan, R. (2003). Competency Management. PPM.
Pishghadam, R., Nejad, T. G., & Shayesteh, S. (2012). Creativity and its relationship with teacher success. BELT-Brazilian English Language Teaching Journal, 3(2).
Rogers, E. M. (2003). Diffusion of Innovations. Free Press.
Scholes, M. S., & Wolfson, M. A. (1992). Taxes and Business Strategy: A Planning Approach. Prentice Hall.

Vranken, J. B. M. (2010). Methodology of legal doctrinal research. In M. A. Hoecke (Ed.), Methodologies of Legal Research (pp. 111-121). Hart Publishing.
Weston, J. F. (1986). The Logic of Intuitive Decision Making. Quorum Books.