



Literature Review: The Influence of Lecturer Competence on Effective Learning

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ABSTRACT

Purpose of the study: This study aims to review the influence of lecturer competence on the effectiveness of learning in higher education using a systematic literature review approach.

Methodology: The methods used include a review of 10 recent articles that discuss aspects of lecturer competence, namely pedagogical, professional, social, technology adaptation, and inclusivity.

Main Findings: The results of the analysis show that the pedagogical and professional competence of lecturers play a major role in supporting material understanding and student engagement. In addition, technological adaptation and inclusivity competencies are becoming increasingly important in the digital era and in dealing with diversity in the classroom. Lecturers' social competence was also found to support the creation of conducive interactions, which have a positive impact on learning effectiveness..

Novelty/Originality of this study: The novelty of this study is a more comprehensive approach in reviewing the multifaceted role of lecturer competence, including aspects of technology and inclusivity, which have not been widely discussed in previous studies.

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1. INTRODUCTION

The role of lecturers in higher education is very important in determining the quality of effective learning. Lecturer competence includes various aspects that affect the learning process and achievement, including pedagogical skills, mastery of material, communication skills, and innovation in teaching methods [1]-[3]. These competencies are the main factors in creating a conducive learning environment and increasing student understanding and involvement in the teaching and learning process [4], [5]. Various studies have shown that lecturers with high competence are able to build an interesting and challenging learning atmosphere, thus having a positive impact on student academic achievement [6]-[8]. However, there are variations in the effectiveness of learning between universities that are often associated with differences in lecturer competence [9]-[11]. Factors such as education and training, teaching experience, and lecturer professional development are aspects that are often considered to understand these variations in effectiveness [12]-[14]. Strong competencies not only improve the quality of classroom learning, but also strengthen students' ability to think critically and innovate, which are important provisions in the world of work [15], [16]. Therefore, evaluating lecturer competencies is important to support better learning that is relevant to today's needs.

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On the other hand, research on lecturer competencies often focuses on general aspects, such as mastery of material and communication skills. Although both aspects are important, there are other dimensions of competency that have not been widely explored, such as the ability to adapt to increasingly developing learning technologies [17], [18]. In this digital era, students are required not only to master the material, but also to be able to use technology as a medium to increase the effectiveness of learning [19]-[21]. This limitation creates a research gap, especially regarding the influence of technology skills on the effectiveness of classroom learning.

Another gap is the lack of research that looks at lecturer competencies comprehensively in the context of inclusive and sustainable learning [22]. Effective learning is not only achieved through good delivery of materials, but also through efforts to build a learning environment that supports diversity and inclusivity [23]-[25]. Lecturer competence in handling diversity and creating an inclusive classroom atmosphere is an important aspect that has rarely been studied [26], [27]. This study is expected to be able to answer this gap by analyzing the influence of lecturer competence on aspects of inclusivity and desire in the learning process.

From an academic perspective, the novelty in this study lies in the comprehensive approach in assessing lecturer competence in the context of continuous effective learning. Unlike previous studies, this study will examine how the combination of various lecturer competencies, including technology adaptation, interaction skills, and understanding of inclusivity, contribute to learning effectiveness [28], [29]. Thus, this study can provide more holistic recommendations for the development of lecturer competence in higher education [30].

This literature review aims to expand the extent to which competence influences the effectiveness of learning in higher education. By reviewing various relevant studies, this article attempts to provide an overview of the relationship between lecturer competence and learning effectiveness, as well as factors that can influence both aspects. This study also aims to provide recommendations for educational institutions in improving lecturer competence as an effort to achieve effective learning.

2. RESEARCH METHOD

2.1 Research Approach

This study uses a qualitative research method with a systematic literature review approach to analyze the influence of lecturer competence on learning effectiveness. This approach was chosen because it allows researchers to collect, select, and analyze various relevant studies comprehensively. A systematic literature review provides a clear and structured framework for disseminating literature, resulting in a reliable synthesis of lecturer competence in improving learning effectiveness in higher education. A systematic literature review was chosen because it allows researchers to collect and review various relevant studies comprehensively, in order to compile an overview of lecturer competence that has an impact on effective learning [31], [32]. This process involves collecting literature from accredited scientific journals, books, conference proceedings, and other academic sources relevant to the topic being studied [12].

2.2 Data Collection Procedure

There are three data collection procedures, namely the first is Data Source. The stages in this literature review include literature search, selection, synthesis, and analysis of findings. Literature search was conducted through credible journal databases, such as Google Scholar, Scopus, and SINTA, with the keywords "lecturer competence", "effective learning", "higher education", and "utilization of technology in learning" [33], [34]. The selected literature was then filtered using inclusion criteria, namely articles published in the last 10 years, have a clear methodology, and are relevant to lecturer competence in the context of higher education.

The second Inclusion and Exclusion Criteria, the inclusion criteria are articles published in the last 10 years, articles that have a clear methodology and are relevant to the research topic, articles that discuss lecturer competence in the context of higher education, articles in English or Indonesian. Furthermore, exclusion criteria include articles with limited access or not fully available, articles that are not relevant to the research topic, articles that do not mention the research methods that can be used [35].

Third search strategy the search strategy was carried out using keywords such as "lecturer competence", "effective learning", "universities", and "utilization of technology in learning". Boolean operators such as AND, OR, and NOT were used to optimize search results. A PRISMA-based search flowchart was used to systematically describe the stages of literature selection.

2.3 Data Analysis

The data obtained from the literature were analyzed using the thematic analysis method. This approach was selected for its ability to identify and group key themes related to lecturer competence and learning effectiveness [36]. The analysis was conducted in several stages. First, all literature meeting the inclusion criteria was read thoroughly to ensure a deep understanding of its context and content. Second, coding was performed to highlight important sections of the literature, categorizing them into relevant themes. Subsequently, similar codes were grouped into overarching themes, including pedagogical competence, professional competence,

social competence, technology adaptation, and inclusive competence. Finally, patterns and relationships among these themes were examined to uncover the connections between lecturer competence and effective learning outcomes. This systematic approach provided a comprehensive understanding of the factors influencing learning effectiveness.

2.4 Validity and Reliability

To ensure the validity and reliability of the research results, several important steps have been taken [25]. First, source triangulation was carried out by utilizing various literatures to reduce bias in data collection and analysis. Second, the results of the analysis were reviewed by experts in the field of higher education to ensure the accuracy and relevance of the findings. In addition, the analysis process was carried out by more than one researcher through a cross-checking mechanism to ensure the consistency of the research results [18]. These steps were taken to increase confidence in the validity of the findings and ensure the suitability of the research results with the stated objectives.

2.5 Limitations of the Method

The limitations of the method in this study include Access to Literature some literature may not be fully available or require access fees, Selection Bias There may be bias in selecting literature even though inclusion and exclusion criteria have been set, and Generalization of Findings The findings of this literature review may not be fully applicable to all higher education contexts, especially outside of a particular geographic or cultural region.

3. RESULTS AND DISCUSSION

Based on a literature review of several articles from Google Scholar, Scopus, and SINTA published in the last 10 years regarding Lecturer Competence for Effective Learning, it can be presented in table 1 below:

Table 1. Results of the literature review

No	Author and Year	Research Title	Competencies learned	Key Findings
1	Hussain et al. (2023)	A Comparative Study of Administrator Supervisory Skills and Teacher Pedagogical Skills towards Quality Education in Public Secondary Schools and Schools Funded by Punjab Education Foundation	Pedagogical	Lecturers' pedagogical competence has a significant influence on students' understanding of the material.
2	Ningsih et al. (2024)	The Role of Technology in the Implementation of Independent Curriculum: A Review of Current Practices	Technological	Lecturers' use of technology increases students' engagement in learning.
3	Werang et al. (2023)	Teaching Performance of Indonesian Language Teachers and Student Learning Outcomes	Professional	Lecturers' mastery of the material supports students' higher academic achievement.
4	Kurniawan et al. (2024)	Implementation of Jigsaw Type Cooperative Learning Model to Improve Social Studies Learning Outcomes	Social	Lecturers' communication skills play a role in creating a conducive learning environment.
5	Lestari et al. (2024)	Problems of Inclusive Learning in Cultivating Entrepreneurial Motivation in Students with Disabilities: Systematic Literature Review (SLR)	Inclusivity Technology adaptation	Lecturers' inclusive competence helps students with special needs learn more easily.
6	Nivianto & Hidayati (2023)	Renewal of Thematic Learning Approaches of Islamic Religious Education in the Digital Era	Technological adaptation	Lecturers' technology adaptability increases the effectiveness of online learning.
7	Khairi et al. (2020)	The Influence of Lecturer Competence in Online Learning Methods on Student Satisfaction in Studying During the Pandemic	Pedagogical, social	Lecturers with high pedagogical and social competence increase students' motivation to learn.

8	Nor et al. (2024)	Strategies for Improving the Professionalism of Islamic Religious Education Teachers in Higher Education	Professional	Continuing professional development for lecturers improves the quality of learning.
9	Rosi et al. (2022)	Hybrid Learning Model; Teacher Strategies in Learning Management During the Pandemic	Technological	Technological competence is important for effective blended (hybrid) learning.
10	Santoso et al. (2022)	Online Independent Learning Skills of Students in Indonesia	Inclusivity	Lecturers' inclusive strategies help integrate students from various backgrounds.

The results of the literature review above show that lecturer competence has a significant influence in supporting the effectiveness of learning in higher education. Pedagogical competence, which includes the ability to plan, implement, and evaluate learning, has been proven to make a major contribution to students' understanding of the material [37]. In addition, social competence involving communication skills and the ability of lecturers to create good interactions in class also plays an important role in building a conducive learning environment [37]. Both of these competencies help create a learning atmosphere that supports student involvement and a deeper understanding of the teaching material [38], [39].

Technology adaptation competence is increasingly relevant in the digital era, where the use of technology such as e-learning and online learning is a necessity [40]. The articles reviewed show that lecturers who are able to utilize technology in the learning process are able to increase student involvement and motivation [41]. This confirms that technology adaptation is not just an additional ability, but is an important part of lecturer competence to support the effectiveness of learning in various modes, including hybrid and online learning [15]. From the results of the literature review conducted, the main gap was found, namely the absence of studies on the integration of inclusive competencies of lecturers in learning [42]. Although there have been several studies that mention the importance of inclusive competencies in supporting the learning of students with special needs, more in-depth studies on how these competencies can support diversity and equality in the classroom have not been widely conducted [43]. This is a potential area for further research, especially in the context of increasingly heterogeneous higher education [44].

The novelty of the research conducted is the comprehensive approach in examining various aspects of lecturer competency, including technology adaptation and inclusivity, which are increasingly needed in the era of modern education. Unlike previous studies that focused more on pedagogical and professional competencies, this study highlights how the combination of these competencies can provide a more optimal impact on learning effectiveness [45]. Thus, this study provides a more comprehensive understanding of the role of multifaceted lecturer competencies in improving learning [46]. The implications of the results of this study emphasize the importance of universities to develop lecturer training programs that cover all aspects of competency comprehensively. This training program can help lecturers improve their skills in using technology, building inclusive communication, and developing adaptive learning materials that are relevant to the needs of today's students.

With a comprehensive lecturer competency approach, it is hoped that universities can create a more effective, sustainable, and relevant learning environment to meet the demands of 21st century education. Overall, this literature review provides a significant contribution to understanding the importance of comprehensive lecturer competency development. In an era of ever-evolving education, the influence of lecturer competency on effective learning cannot be viewed from one side alone. A comprehensive approach is needed so that lecturers can meet increasingly dynamic learning needs, so that universities can better prepare their graduates to face future challenges.

4. CONCLUSION

From the results of this literature review, it can be concluded that lecturer competence has a very large influence on the effectiveness of learning in higher education. Competence consisting of pedagogical, professional, social, technology adaptation, and inclusive aspects, complement each other in creating a conducive and effective learning environment. Competence in technology adaptation and inclusiveness is becoming increasingly important in the current digital era and educational diversity. Although many studies have discussed pedagogical and professional competence, there is still a gap in the literature regarding the integration of inclusive competence in supporting class diversity. Future research should focus on developing frameworks for integrating inclusive competence into teaching practices to address the challenges of diverse classrooms. Furthermore, collaboration between policymakers and educators is needed to design policies that encourage the

continuous improvement of lecturers' competencies in line with the demands of the digital and globalized educational landscape.

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