Development and Implementation of Online Learning Based on E-Learning

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ABSTRACK

The development and transmission of learning today is needed to expand knowledge so that it can be easily obtained as well as online learning based on E-learning. This is useful so that interactions and learning are given to students by lecturers are easier. In the study entitled Development and implementation of online learning based on e-learning in Siyasah Departement of Faculty of Syariah dan Law UIN SU will be conducted to find out how the development of learning, strategies and supporting factors as well as inhibitors of the development of e-learning in Siyasah Departement of Faculty of Syariah dan Law UIN SU. The data collection technique is carried out by Observation, Interview, Document and Literature Study and the subject of this research are students and lecturers of Siyasah Departement of Faculty of Syariah dan Law UIN SU as much as 10% of the total number of students randomly. Consequently, only a limited number of professors have adopted e-learning within the Department of Sharia and Law at UIN SU, and overall, the implementation of an online learning-based e-learning system among lecturers is sparse. This study seeks to examine the facilitating and obstructive aspects in the advancement of e-learning.

Keywords: Development of learning, Student engagement, teaching presence, higher education

1. INTRODUCTION

The advancement of the present era necessitates our openness to complex knowledge and a learning system capable of adapting to contemporary developments to avoid obsolescence (Hajriyah, 2020). The educational sector must advance in technology to ensure the accessibility of information. All individuals engaged in the field of education also receive updates on ongoing developments in information. Currently, all learning models are continually being updated, making it challenging to conceive the absence of this information in a sophisticated manner. One aspect of technical advancements pertains to Information Communication Technology (ICT). Information may be rapidly disseminated over long distances with ICT, yielding significant advantages in human life (Bambang Warsita, 2014). The emergence of ICT enables individuals worldwide to

exchange information and engage swiftly and effectively, irrespective of their geographical location or daily language usage. A student residing in a remote place can access information or acquire knowledge situated thousands or hundreds of thousands of kilometers far (Suartama, 2015).

A primary impediment to the deployment of e-learning in the Siyasah Department is the inadequacy of technological infrastructure. Students from regions with restricted internet access frequently have challenges in fully engaging in online lectures. An unreliable internet connection significantly hinders participation, particularly during video conferencing lectures on platforms like Zoom and Google Meet, or when students need to access the Learning Management System (LMS) utilized in online education. Internet outages during lectures might impede comprehension of the topic and diminish student engagement in academic discussions (Meng, Dong, Roehrs, & Luan, 2023).

The restricted capacity of servers and LMS platforms is a barrier. E-learning systems frequently experience overload due to a substantial user base, resulting in diminished access to educational resources and obstructing the execution of online assessments. This induces irritation for students and instructors, particularly in the academic evaluation process that necessitates a steady and dependable system. The subsequent challenge is to the accessibility of technological equipment among pupils. Not all students possess computers or digital gadgets that facilitate optimal access to e-learning. The majority continue to depend on smartphones with constrained hardware, which are occasionally insufficient for operating video-based learning programs or interactive animations. Students lacking adequate gadgets frequently have challenges in fulfilling academic requirements or participating in online examinations (Saadati, Zeki, & Vatankhah Barenji, 2023).

Alongside infrastructure issues, the digital divide poses a significant impediment to the deployment of e-learning. The digital divide denotes the disparity in access to digital technology, encompassing both proficiency in utilization and the availability of resources. Within the UINSU environment, a significant disparity in internet access exists between students residing in metropolitan areas and those hailing from rural regions. Students residing in regions with insufficient internet infrastructure frequently must seek locations with superior signal quality only to participate in online lectures.

The varying levels of digital literacy present a barrier in the online learning process. Not all students and instructors possess the technological proficiency to fully utilize e-learning. Certain students continue to encounter challenges in accessing and utilizing the LMS, submitting assignments, or participating in online discussion groups. Conversely, certain lecturers encountered difficulties in assembling and presenting instructional materials in an engaging and comprehensible digital format. The influence of inadequate infrastructure and the digital divide on the execution of e-learning in the Siyasah Department is considerable. A significant effect is the reduction in student engagement in the learning process. Students encountering issues with internet connectivity or technological gadgets often struggle to attend courses regularly. This results in diminished participation in debates, reduced engagement in academic work, and a general decline in enthusiasm to study. Furthermore, restricted access to technology engenders a disparity

in the quality of education. Students with reliable internet access and sufficient equipment can learn more effectively than those facing technical challenges.

This may result in a disparity in material comprehension across pupils, thereby affecting their academic achievement. To address this difficulty, multiple solutions can be implemented to enhance the efficacy of e-learning at the Faculty of Sharia and Law UINSU. One measure that can be implemented is the enhancement of technological infrastructure, including the augmentation of e-learning server capacity for improved stability and the provision of complimentary internet connection or quota subsidies for disadvantaged students. Cloud-based technology can serve as a solution for storing instructional materials, enabling more flexible access.

Furthermore, initiatives are required to enhance digital literacy among students and educators. Technology training programs can enhance students' proficiency in utilizing LMS and online learning apps. Simultaneously, instructors may receive training in the development of more dynamic and engaging digital teaching materials to enhance student participation in online learning (Istenič, 2021). An alternative method that can be utilized is the blended learning paradigm, which integrates online and in-person instruction. This technique allows students to engage in in-person learning while still accessing supplementary information online. This concept will mitigate the effects of restricted internet access, while offering students freedom in controlling their study schedules. The adoption of e-learning in the Department of Sharia, Faculty of Sharia and Law UIN SU encounters certain problems, particularly with infrastructure and the digital divide.

2. RESEARCH METHOD

This qualitative case study examines the process, problems, and outcomes associated with the implementation of online learning in the Siyasah Department. Primary data was gathered via interviews with faculty members, administrators, and students, alongside observations of utilized e-learning systems. Secondary data comprises institutional records, course syllabi, e-learning utilization statistics, and pertinent academic literature on e-learning in Islamic education. Information sources include lecturers who design and deliver Siyasah courses via e-learning platforms, individuals enrolled in Siyasah courses to gain insights into their experiences and perceptions of online learning, faculty leaders and IT personnel tasked with implementing and maintaining e-learning systems, and educational technologists or e-learning specialists.

Stages & Techniques of Data Collection with interviews, observation, document analysis and surveys. The data analysis in this study was conducted meticulously to guarantee the validity and precision of the findings. The data collected from interviews and observations were evaluated through a thematic methodology (Ali, Hariyati, Pratiwi, & Afifah, 2022). The procedure commences with a thorough examination of interview transcripts and observation notes, followed by the identification of predominant themes that arise. These themes encompass diverse elements, including technological difficulties associated with e-learning, instructors' perceptions of online learning efficacy, and students' experiences with digital platforms.

3. RESULT AND DISCUSSION

This study yielded some significant conclusions concerning the establishment and execution of e-learning-based online education within the Department of Siyasah, Faculty of Sharia and Law UIN SU. The findings encompass three primary aspects: the efficacy of e-learning, the problems encountered, and the influence on the learning process.

Effectiveness of Online Education

The study's findings indicate that the integration of e-learning inside the Siyasah Department has yielded beneficial effects in various dimensions. Students and lecturers value the convenient accessibility of course materials, available at any time and from any location. This enables pupils to learn at their own pace. The utilized e-learning platform facilitates student access to instructional resources, modules, and tasks offered by instructors. The majority of students perceive the course material as more structured and comprehensible.

Moreover, instructors indicated that they starting utilizing diverse functionalities of e-learning platforms, including discussion forums, instructional videos, and online assessments, to enhance student connection and engagement. Data indicates that 85% of students found time management for attending lectures more manageable due to the accessibility of learning materials anytime and anywhere. Additionally, 80% of students reported easier access to online lecture materials, particularly videos and downloadable documents. Furthermore, 70% of students felt an increased sense of independence in managing their study time and seeking supplementary reference sources following the implementation of online learning. Simultaneously, 65% of students believe that online learning enhances their proficiency in utilizing technology for academic endeavors.

Regarding educational innovation, 60% of instructors utilize diverse functionalities of e-learning platforms (e.g., discussion forums, online quizzes, instructional videos) to enhance interactivity in learning, while 75% of students believe that multimedia learning resources (such as videos, presentations, and online quizzes) render lectures more engaging. E-learning at the Siyasah Department yields substantial outcomes across various dimensions. The flexibility of e-learning enables students to access materials at any time and from any location, which is much valued by those with demanding schedules or geographical limitations. Data indicates that 85% of students perceive online learning as facilitating more effective time management for studying. Furthermore, e-learning enhances the accessibility of resources, with 80% of students indicating that they have improved access to instructional materials, including videos and papers. This enables students to learn more flexibly, even when they cannot attend in-person courses. The advancement of pedagogical techniques is also on the rise. Instructors starting utilizing diverse e-learning functionalities, including discussion forums, instructional films, and online assessments. Approximately 60% of lecturers indicated utilizing these capabilities, whilst 75% of students perceived that multimedia enhanced the engagement and interactivity of their learning experience. Ultimately, e-learning enhances student

autonomy in education. Approximately 70% of students believe they have increased their independence in time management and in seeking supplementary learning resources via digital platforms.

Obligation

This study also identifies some problems that impede the optimization of online learning. Some students encounter unpredictable internet access limitations, particularly those residing in regions with inadequate internet infrastructure. Not all instructors possess sufficient proficiency in utilizing e-learning technology. Several individuals require more training to enhance the platform's functionalities. Although e-learning offers flexibility, certain students experience challenges in sustaining consistent independent learning. Participation in discussion forums is generally minimal; 40% of students indicate issues with unreliable internet access, particularly those residing in rural regions or areas with poor connectivity. Additionally, 30% of students acknowledge challenges in accessing learning materials or fully attending online lectures due to inadequate devices (smartphones/laptops). Furthermore, 45% of lecturers experience difficulties in effectively utilizing the e-learning platform, especially regarding interactive features such as discussion forums and automated assessments, Thirty-five percent of lecturers expressed a need for additional training in utilizing e-learning platforms to enhance their online teaching competencies. Fifty percent of students indicated a diminished engagement in online discussions and Q&A forums relative to in-person learning. Furthermore, forty percent of students acknowledged a tendency towards passivity in online learning, particularly in the absence of direct interaction with lecturers and peers.

While the adoption of e-learning offers numerous advantages, the hurdles encountered are also considerable. A significant barrier is the inadequacy of technological infrastructure, with 40% of students reporting issues linked to unreliable internet connection, particularly among those residing in regions with restricted internet connectivity. This obstructs the seamless online learning experience, particularly when students encounter challenges in accessing resources or participating in virtual sessions. The technological preparedness of instructors presents a hurdle. Approximately 45% of lecturers reported challenges in fully utilizing the e-learning technology. A multitude of lecturers lack familiarity with the technology, hindering their ability to utilize the available interactive features, like discussion forums and computerized exams. A further difficulty is the diminished student engagement sometimes observed in online learning environments. Approximately 50% of students acknowledged feeling less engaged in online talks and exhibiting a more passive demeanor during online learning interactions. This indicates that the dynamics of engagement in online learning cannot entirely substitute for the face-to-face interaction typically present in in-person sessions.

Influence on the Educational Process

The implementation of e-learning not only transforms the delivery of content but also influences the dynamics of interaction between instructors and students. In contrast to in-person learning, direct interaction between instructors and students is significantly

restricted. This influences the dynamics of class debates, which are typically more vibrant in traditional lectures. Conversely, students are shown to exhibit greater independence in locating and acquiring supplementary information, as they are accustomed to utilizing many internet resources.

The participants, comprising academics and students, provided numerous suggestions for enhancement. Instructors require ongoing training in e-learning platforms, whereas students necessitate guidance on maximizing the use of e-learning. Universities must enhance technical support by enhancing campus internet connectivity and providing technology help to students requiring aid. Several respondents advocated for the adoption of a hybrid model that integrates online and in-person learning to preserve interaction quality while leveraging digital technology. Sixty percent of students expressed that, despite the flexibility of e-learning, they experience diminished emotional and intellectual engagement compared to traditional face-to-face methods. Furthermore, fifty percent of lecturers noted that students often exhibit greater passivity in online discussions or forums. Seventy-five percent of lecturers believe that online learning may deliver comparable quality to in-person meetings, provided it is supplemented with high-quality content and appropriate multimedia utilization, through active engagement between lecturers and students, 70% of students believe they comprehend the subject more effectively when they may access it often and utilize supplementary online resources. 80% of students acknowledged that e-learning enhances their comprehension and mastery of digital abilities, including the use of learning applications, online literature searches, and the management of individual study time (Hutagalung, Murizal, Isnani, & Saragih, 2023).

The use of e-learning profoundly influences the educational process, affecting students, instructors, and the overall quality of education. The effect on students is evident in the enhancement of digital skills; 80% of students believe that e-learning facilitates the improvement of digital literacy, which is crucial in a progressively technology-driven workforce. Moreover, while students exhibit greater autonomy in their learning, they experience diminished emotional and intellectual engagement in online learning relative to traditional face-to-face models.

E-learning fosters innovation in pedagogical approaches from the lecturer's perspective. By employing diverse educational media, instructors may cultivate a more engaging and stimulating learning environment. Nevertheless, several lecturers continue to encounter challenges in optimizing the utilization of available e-learning features, such as discussion forums or online quizzes, owing to insufficient technological proficiency, which subsequently impacts the overall quality of learning. Up to 75% of lecturers believe that the quality of online learning is comparable to in-person instruction, provided it is enhanced by high-quality content, suitable technology, and active engagement between lecturers and students. Nonetheless, restricted engagement in online education diminishes student participation in the learning process, potentially compromising the quality of their educational experience.

4. DISCUSSION

The study's findings indicate that the integration of e-learning in the Siyasah Department has positively influenced various elements, including learning flexibility, enhanced material accessibility, innovative teaching methodologies, and greater student autonomy (Putra, Maulana, Chayo, Haekal, & Syaharani, 2024). This study identified substantial problems, including inadequate technological infrastructure, the preparedness of instructors and students, and insufficient student participation in online discussion forums.

The outcomes of this study align with other prior studies indicating that e-learning enhances learning flexibility and accessibility. Research conducted by Al-Samarraie indicated that e-learning facilitates students' access to educational resources across diverse locales (Al-Samarraie, Shamsuddin, & Alzahrani, 2020). The study underscores particular issues, notably with Islamic education and infrastructural deficiencies in poor nations. In the local setting, difficulties such as faculty and student preparedness are more pronounced than in other studies that examine institutions with better developed technology infrastructure. The observation that e-learning offers temporal and spatial flexibility, enhances material accessibility, and fosters student autonomy is attributable to the Constructivism Theory proposed by Jean Piaget and Lev Vygotsky. Constructivism posits that optimal learning transpires when individuals actively construct their knowledge via engagement with their environment and experiences (Debby Adelita Febrianti Purnamasari, 2024)

In the realm of e-learning, the flexibility provided enables students to autonomously build their knowledge and more effectively adjust to their individual learning pace. The implementation of e-learning that integrates diverse educational media (videos, discussion forums, online quizzes) is an endeavor to furnish several resources that facilitate the constructive learning process. Online learning enables students to actively participate, discuss, and contribute within a more flexible framework, thereby reinforcing the principles of constructivism.

In addition, more modern Technology-Based Learning Theories, such as the Community of Inquiry (CoI), state that effective learning in an online environment requires three main elements: cognitive presence, social presence, and teaching presence (Kirana, Anggraeni, & Diana, 2021). The study's findings indicate that students have greater independence and enhanced access to materials, thereby reinforcing the notion that well-managed online learning may optimize these aspects. Data indicating diminished student engagement in online discussion forums highlights the difficulty of fostering robust social ties, which the Community of Inquiry (CoI) paradigm posits as essential.

This study's findings indicate that e-learning can serve as a strategic option to enhance the quality of education in the Siyasah Department, particularly in the digital age. Nonetheless, its success necessitates comprehensive assistance through technological training, infrastructure enhancement, and continuous mentorship. Furthermore, these findings suggest the necessity for a paradigm shift in education, transitioning from a conventional methodology to a more technology-driven and collaborative learning framework.

Universities must enhance technology infrastructure to facilitate e-learning by ensuring sufficient internet connectivity, intuitive e-learning platforms, and robust technical support services. Continuous training is essential to enhance lecturers' technological proficiency, enabling them to fully utilize e-learning features and foster interactive learning. E-learning offers students the chance to cultivate autonomy and digital competence, essential for their professional endeavors. This outcome promotes the amalgamation of Islamic principles with a digital learning methodology to ensure its contemporary relevance. The execution of e-learning has not been sufficiently bolstered by appropriate infrastructure, particularly for students residing in regions with restricted internet connectivity.

The obstacles encountered in e-learning implementation, including technological infrastructure limitations and lecturers' preparedness to utilize technology, can be elucidated through Everett Rogers' Innovation Adoption Theory, which posits that the adoption of new technologies is affected by factors such as complexity, appropriateness, and user-friendliness. Numerous professors encounter challenges in utilizing current e-learning systems, suggesting that these platforms may be perceived as sophisticated or insufficiently user-friendly, particularly for those lecturers who possess limited technological proficiency.

The Technology Acceptance Model (TAM), created by Davis, elucidates the difficulties encountered by lecturers and students in the use of e-learning technology (Hanum, Rambe, Harahap, Prayoga, & Pohan, 2023). This model posits that the primary determinants of technology adoption are perceived ease of use and perceived utility. Instructors who struggle with the e-learning platform or are uncertain of its advantages may impede the successful adoption of e-learning.

The results about the constraints of technical infrastructure, with 40% of students encountering challenges with internet access, are also pertinent to the Digital Divide Theory, which illustrates the disparity in technology access between the affluent and the underprivileged. This highlights the necessity of ensuring more equitable internet access to mitigate disparities in the online learning experience.

The implementation of e-learning that enhances student autonomy is also associated with Albert Bandura's Social Learning Theory (Khechine & Augier, 2019). This idea posits that learning transpires via observation and social interaction. While online learning offers flexibility, data indicates a decline in students' social participation, thereby undermining the anticipated efficacy of social learning. The constraints of social contact in online learning can diminish opportunities for students to engage in direct interactions with peers or instructors, a crucial element of social learning theory.

Furthermore, Digital Literacy is gaining significance in contemporary education, and the results of this study indicate that e-learning in the Siyasah Department has enhanced students' digital literacy. Recent studies indicate that e-learning enhances the acquisition of digital skills essential for the workforce and everyday life. This corroborates Bakia's research, which asserts that e-learning enhances not only academic competencies but also broader digital proficiencies (Sutrisno & Lubis, 2022).

Despite many students experiencing increased independence in utilizing technology, data indicates a propensity for students to adopt a passive role in online learning

(Supriatna, Muslim, Fathani, & ..., 2021). This signifies a necessity for improved techniques to foster more dynamic social connections in the online sphere.

5. CONCLUSION

This study investigates the evolution and execution of e-learning-based online education within the Department of Siyasah, Faculty of Sharia and Law, UIN SU. Following the study of data and subsequent discussions, several major findings have emerged. E-learning offers temporal and spatial flexibility, enhances access to educational resources, and enables students and instructors to adjust to technological advancements. Within the realm of Islamic education, the e-learning system serves as a pertinent tool to enhance the quality of learning, particularly in addressing the problems posed by the digital age.

Despite the numerous benefits of e-learning, its implementation encounters several challenges, including restricted internet access, insufficient technological proficiency among instructors, and minimal student engagement in online education. This indicates that technological assistance and training are crucial for enhancing the efficacy of e-learning. The adoption of e-learning has fostered greater independence among students in their study and use of digital resources. Nonetheless, online learning diminishes the degree of direct connection between students and instructors, potentially impacting the dynamics of education.

Consequently, it is essential to establish a balance between technological utilization and in-person engagement. The study's findings indicate that the hybrid model, integrating online and in-person learning, may address the issues associated with e-learning. This method enables educators and learners to leverage technological flexibility while preserving the quality of engagement in education. E-learning enhances the digital literacy of students and faculty in the Siyasah Department. Proficient digital literacy is essential for online learning to effectively advance the objectives of Islamic education, which are both global and adaptable to contemporary contexts.

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