Qualitative Analysis of Obstacles and Obstacles in Implementing the EDLINK Application at the Surakarta

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Abstract

This research aims to conduct a qualitative analysis of the obstacles and obstacles that arise in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta. This research uses a qualitative method with a case study approach. Data was collected through in-depth interviews with key informants, namely lecturers, administrative staff and students involved in using the EDLINK application. Other techniques used are observation and document analysis. Data were analyzed using qualitative data analysis techniques. The collected data was analyzed through a categorization process to identify the obstacles and barriers experienced by lecturers and students in using the EDLINK application. Based on the research results, it can be concluded that there are several obstacles and obstacles in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta. Factors that cause these obstacles include limited infrastructure, lack of training and socialization, changes in work culture, and resistance factors. It is hoped that the results of this research will provide a comprehensive picture of the challenges faced in integrating technology in the higher education academic system. The findings of this research can provide valuable insight for the Mamba'ul 'Ulum Islamic Institute to increase the effectiveness of implementing the EDLINK application and overcome obstacles that arise in the process. In addition, it is hoped that this research can contribute to the literature regarding the integration of technology in higher education academic systems.

Keywords: Qualitative Analysis, Implementation, Application of EDLINK

Abstrak

Penelitian ini bertujuan untuk melakukan analisis kualitatif terhadap hambatan dan kendala yang muncul dalam implementasi aplikasi EDLINK di Institut Islam Mamba'ul 'Ulum Surakarta. Penelitian ini menggunakan metode kualitatif dengan pendekatan studi kasus. Pengumpulan data dilakukan melalui wawancara mendalam terhadap informan kunci yaitu dosen, tenaga administrasi dan mahasiswa yang terlibat dalam penggunaan aplikasi EDLINK. Teknik lain yang digunakan adalah observasi dan analisis dokumen. Data dianalisis dengan menggunakan teknik analisis data kualitatif. Data yang terkumpul dianalisis melalui proses kategorisasi untuk mengidentifikasi hambatan dan hambatan yang dialami dosen dan mahasiswa dalam menggunakan aplikasi EDLINK. Berdasarkan hasil penelitian dapat disimpulkan bahwa terdapat beberapa kendala dan hambatan dalam penerapan aplikasi EDLINK di Institut Islam Mamba'ul 'Ulum Surakarta. Faktor penyebab kendala tersebut antara lain keterbatasan infrastruktur, kurangnya pelatihan dan sosialisasi, perubahan budaya kerja,

dan faktor resistensi. Hasil penelitian ini diharapkan dapat memberikan gambaran menyeluruh mengenai tantangan yang dihadapi dalam mengintegrasikan teknologi dalam sistem akademik pendidikan tinggi. Temuan penelitian ini dapat memberikan wawasan berharga bagi Institut Islam Mamba'ul 'Ulum untuk meningkatkan efektivitas penerapan aplikasi EDLINK dan mengatasi kendala yang muncul dalam prosesnya. Selain itu, penelitian ini diharapkan dapat memberikan kontribusi pada literatur mengenai integrasi teknologi dalam sistem akademik perguruan tinggi.

Kata Kunci: *Analisis Kualitatif, Implementasi, Penerapan EDLINK*

Introduction

The world is now familiar with the term Covid-19 pandemic which originated in Wuhan, China. This epidemic quickly spread through the air and direct contact, initially only having a serious impact in China but over time, it spread throughout the world. This pandemic has also had a significant impact on various sectors, including education (Atuahene et al., 2020; Han, 2021; Onyema, 2020). The learning process has stopped and to overcome this situation, education has shifted to online learning. Education management has stalled at its lowest level, and the world of education is looking for new breakthroughs to facilitate distance learning (D. W. Brown, 1999; P. Brown et al., 2010). One of these breakthroughs is the use of Online Learning Media, where the Sevima EDLINK application is one solution. EDLINK makes it possible to download materials and be part of the educational transformation in various institutions (Armawi et al., 2021).

Online learning demands effectiveness and effectiveness so that students can understand the material well. Therefore, this research focuses on the influence of the Sevima EDLINK application on online learning outcomes, especially at the Mamba'ul 'Ulum Islamic Institute, Surakarta. The pandemic created difficulties, especially in the beginning, but educational institutions adapted to innovations such as the EDLINK app to improve the quality of online learning (Hijrawatil Aswat et al., 2022; Triono et al., 2023; Twagiramungu, 2023). This research details the impact of the pandemic on Indonesian education, the role of the EDLINK application in overcoming barriers to online learning, and other innovations implemented. The evaluation was carried out to measure the success and development of the use of the application at the Mamba'ul 'Ulum Islamic Institute. Evaluation is very important to ensure programs and activities meet standards and achieve set goals.

Based on the results of observations, it appears that the use of the EDLINK application by lecturers at the Mamba'ul 'Ulum Islamic Institute, Surakarta is still minimal. Students who fill out the questionnaire provide opinions based on conditions in their respective classes and come from various study programs (P. Brown et al., 2010; Tinto, 2012). From the questionnaire, the majority of students stated that all lecturers used the EDLINK application in lectures, especially the absence feature. However, when asked about other features, most students stated that only 2-4 lecturers used them. This is the main reason for conducting research on the effectiveness of using the EDLINK application on obtaining the Student Achievement Index at the Mamba'ul 'Ulum Islamic Institute, Surakarta. Several previous studies, such as those conducted by Novandini & Luta, show that using EDLINK e-learning can improve exam results and motivate students effectively (Novandini & Luta, 2018).

EDLINK has a discussion forum feature that allows interaction between lecturers and students, facilitates lengthy discussions, and enhances the learning experience. A lot of research has been conducted regarding online learning in the pandemic era, but further research is still needed to evaluate the success and effectiveness of using digital education

platforms, especially at Islamic Religious Universities (PTKI) after the pandemic. This research will explore problems related to obstacles and constraints in implementing the EDLINK application in the academic system at the Mamba'ul 'Ulum Islamic Institute, Surakarta.

Research Methodology

This research uses a qualitative approach with case studies. The reason for choosing a qualitative approach was to gain an in-depth understanding of the barriers and obstacles in implementing the EDLINK application at the Mambaul Ulum Islamic Institute, Surakarta. The use of case studies was chosen to emphasize the research focus on one particular case, namely the implementation of the EDLINK application at the Mambaul Ulum Islamic Institute, Surakarta. A "Case Study" or "Case Studies" refers to the exploration of a bounded system or multiple cases in a context. The term "case" is derived from the word "case," which can include programs, events, activities, or individuals (Creswell & Poth, 2016). In the context of a case study, research is conducted to explore a particular phenomenon in a particular time and activity, involving the collection of in-depth data from various sources of rich information. The system bound in a case study is bound by time and place, while the case can cover various aspects such as programs, events, processes, institutions, or social groups. Essentially, a case study is research in which the researcher investigates a particular phenomenon or case in a context, collecting detailed and in-depth information through various data collection methods over a certain period of time (Creswell et al., 2006; Sugiyono, 2010). Case Studies focus attention on one object selected as a case to be analyzed in depth, with the aim of uncovering the reality behind the phenomenon. In the phenomenological paradigm, what is seen or visible to the eye is not actually something that is truly real (reality), but is only a reflection of what is inside. The researcher's task in a Case Study is to explore these invisible things to

gain observable knowledge (Creswell & Poth, 2016; Sugiyono, 2022). Therefore, Case Study can be interpreted as a process of analyzing or understanding a case, as well as looking for the results resulting from the analysis.

This research focuses on the implementation of the Sevima EDLINK application in the academic system at the Mamba'ul 'Ulum Islamic Institute, Surakarta. The duration of this research is planned for six months, starting in February 2023 to July 2023, with the research location at the Mamba'ul 'Ulum Islamic Institute, Surakarta. The research targets involve students from various study programs, such as Islamic Religious Education (PAI), Madrasah Ibtidaiyah Teacher Education (PGMI), Islamic Family Law (HKI), Arabic Language Education (PBS), Da'wah Management (MD), and Islamic Communication and Broadcasting (KPI). The research subjects consisted of students, lecturers and staff at the Mamba'ul 'Ulum Islamic Institute, Surakarta. paraphrase the text. Data collection techniques were carried out using in-depth interviews with key informants including lecturers, administrative staff and students who were involved in using the EDLINK application. Direct observation was also applied to understand the practice of using applications at the Mamba'ul 'Ulum Islamic Institute, Surakarta. Additional data sources were taken from documents related to the EDLINK application such as user guides, usage policies, and evaluation reports, which were analyzed through documentation techniques.

Creswell stated that in case studies, the data collection process involves a substantial amount because the researcher seeks to build an in-depth picture of a case. Careful analysis is required to develop a detailed description of the case being studied. For example, theme or issue analysis can be used to analyze the context or setting of a case which can reflect itself (Creswell & Poth, 2016; Jasmi, 2012). Creswell asserts that case studies form a "larger" structure in written narrative form (Creswell & Poth, 2016). This is because case studies use theory to explain cases or carry out

several analyzes to present comparisons between cases or places. The data collection instruments are an observation checklist to record student interactions, an interview guide to guide conversations, and document analysis using material and assignment evaluation rubrics. Qualitative data analysis was carried out using a thematic approach, by identifying main patterns and themes from the results of observations, interviews and document analysis. Data triangulation was used to ensure the validity and reliability of the findings.

The data analysis process aims to provide interpretation through the theoretical framework of online learning and the effectiveness of application use. A descriptive analysis approach was used to describe in detail the constraints and obstacles in implementing the EDLINK application at the Mambaul Ulum Islamic Institute, Surakarta. The validity of the data is assessed through techniques such as technical triangulation and source triangulation, all of which aim to ensure the integrity and validity of the data. All research was carried out while adhering to research ethics, including obtaining informed consent, maintaining the anonymity of informants, and ensuring data integrity without manipulation.

Results and Discussion

Digital transformation in the Indonesian education sector has become a widely discussed topic and has been followed by various discussions, regulations and concrete efforts to implement digital transformation at all levels of education, from universities to school levels. Even though there were previously discussions, policies and financial information related to the Industrial Era 4.0, they had not been able to encourage the education sector to make significant progress in digital transformation. Viewed from various perspectives, it can be concluded that the Covid-19 pandemic has had a negative impact on various aspects of human life. In particular, efforts to prevent the spread of Covid-19 through Large-Scale Social Restrictions (PSBB) or lockdown with calls to stay at home, work, study and carry out other activities at home. However, there are positive impacts, such as improvements in natural conditions, and have proven to be a trigger for accelerating the digital transformation of education in Indonesia. As a creative response, education 4.0 combines the use of digital technology, open content resources, and global classes in the application of lifelong learning, flexible education systems, and personalized learning.

The new normal in online learning is not a solution to certain questions, but rather an adaptation to conditions in which everyone is "forced" to do it. Although the teaching and learning process cannot be stopped, all parties must adapt to online learning, regardless of individual preferences or abilities. Lecturers and students are currently starting to learn to use various supporting tools and media for online learning, even though they may face different obstacles and limitations. This reflects progress in appreciating and understanding the use of technology in the learning process.

Interviews with several related parties at the Mamba'ul 'Ulum Islamic Institute, Surakarta to obtain information regarding the limitations of information technology infrastructure and their impact on the implementation of the EDLINK application. The current condition of information technology infrastructure at the Mambaul Ulum Islamic Institute, Surakarta, is still inadequate. There are specific problems related to unstable internet connections, as well as slow access to the EDLINK application. Infrastructure limitations have a significant impact on optimizing the implementation of the EDLINK application. Unstable internet connections are a major obstacle, preventing efficient access and use of applications. Users, including staff and students, experience problems in using the EDLINK application. Slow application access makes the learning and administration process less effective and efficient. In general, users, both staff and students, have the perception that the quality of information technology infrastructure does not meet the needs of

applications such as EDLINK. Some of them expressed an urgent need for improvements so that application use could run more smoothly.

The institute has long-term plans to develop information technology infrastructure to support EDLINK applications in the future. This plan is still in the stage of further discussion and planning. The results of this interview provide an overview of the challenges faced by the Mamba'ul 'Ulum Surakarta Islamic Institute in implementing the EDLINK application due to limited infrastructure. Concrete efforts are needed to improve infrastructure conditions in order to improve the quality of use of these applications within the institute.

The use of the EDLINK application is seen by lecturers, administrative staff and students of the Mamba'ul 'Ulum Surakarta Islamic Institute as lacking training and socialization. Respondents said that until now, lecturers, administrative staff and students have not received adequate training regarding the use of the EDLINK application. Existing training is still limited and does not cover important aspects of the application. Respondents expressed that lack of training led to high levels of confusion. Lecturers and administrative staff find it difficult to use the application's critical features, while students feel hampered in the online learning process. Lack of training and socialization has a direct impact on the performance of lecturers and administrative staff in managing academic administration. Students also experience difficulties in accessing and utilizing application features for learning. Most respondents stated that the training they had received was still lacking in providing an in-depth understanding of how to optimally use the EDLINK application. Some expressed a need for advanced and in-depth training. The results of this interview highlight the urgent need to improve training and outreach programs related to the EDLINK application at the Mambaul Ulum Islamic Institute, Surakarta. Better training is expected to improve user understanding and skills, which

in turn will support more effective and efficient use of the application.

The impact of changes in work culture required in implementing the EDLINK application at the Mambaul Ulum Islamic Institute, Surakarta. Most respondents realized that implementing the EDLINK application required a change in work culture, especially from a manual system to a digital system. They agree that this change is not just about technology, but also involves mindsets and work practices. Changing work culture requires significant time. The process of adapting from manual to digital use can be a challenge, especially for those who are used to traditional systems. Several respondents admitted that there were difficulties in making the transition from the manual system to the EDLINK application. These changes may cause anxiety and resistance from some staff members who feel unprepared to adapt to new technology. The existence of support and training from the institute is recognized as an important factor in facilitating work culture change. Respondents felt that adequate training could help users feel more confident and ready to face change. Despite the challenges, some respondents saw the potential for increased productivity once cultural change was achieved. They argue that with the right time and support, the EDLINK application can help improve work efficiency. The results of this interview illustrate that changing work culture in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta is a process that requires time and joint efforts. The institute's support, training and commitment were deemed crucial to facilitate a smooth and successful transition.

Respondents identified that a number of users, both lecturers, administrative staff and students, showed resistance to changing from a manual system to using the EDLINK application. This resistance includes discomfort and dissatisfaction with the change. Respondents explained that some users prefer manual systems because they are used to and feel comfortable with this way of working. Some also worry about the difficulty

of adapting to new technology. Some users expressed fear that they would not be able to master or understand the EDLINK application properly. Uncertainty regarding technological capabilities is one of the main factors of resistance. Respondents stated that some users may have difficulty understanding the features of the EDLINK application, and this is a resistance factor. Lack of support and training was identified as a major contributor to these difficulties. The results of this interview provide an overview of the complexity of resistance experienced by some users of the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta. Strategies involving training, technical support, and effective communication were identified as key to reducing resistance and increasing application adoption.

In facing obstacles to implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta, one of the recommended solutions is improving information technology infrastructure, especially internet connections and hardware. Problems with unstable internet connections and hardware limitations can be obstacles to using this application. It is hoped that improving the quality of internet connections can overcome the problem of slow application access, which can affect the user experience. With a stable and fast internet connection, the process of using the application can run more smoothly and efficiently. In addition, hardware upgrades are also important to support optimal application performance. Adequate hardware can ensure that applications can be accessed and used effectively by users without experiencing technical obstacles. Thus, updating or upgrading hardware such as computers or mobile devices that are compatible with the application can improve overall performance. This effort to improve information technology infrastructure not only has an impact on the implementation of the EDLINK application, but can also provide long-term benefits in supporting various information technology activities at the institute.

The recommended strategy for implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta, is to provide more intensive training and outreach to lecturers, administrative staff and students regarding the use of the application. The importance of in-depth training and socialization is related to a better understanding of application features, how to use them, and the benefits that can be obtained. Intensive training can help users, including lecturers and administrative staff, to gain a comprehensive understanding of the various functions of the EDLINK application. This involves learning about in-app navigation, content management, as well as utilizing special features that may exist. In addition, training tailored to the user's needs and level of understanding can help reduce confusion and increase skill levels in using the application. More intensive outreach is also needed so that the entire academic community, including students, can understand the importance and benefits of this application. Clear communication regarding the goals of application implementation, expected changes, and how each individual contributes to using the application can create better understanding between all parties.

Implementation of the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta, assistance and regular monitoring are considered important factors to ensure the smooth use of the application. This approach involves providing direct assistance to users, including lecturers, administrative staff and students, as well as carrying out regular monitoring of application use. Direct assistance provides users with the opportunity to get direct assistance or clarification regarding application use. The companion can provide directions, solutions, or answers to questions that may arise while using the application. With this assistance, users can feel more supported and have a direct reference source to overcome obstacles that may arise. Regular monitoring also plays a crucial role in ensuring smooth application use. Through this monitoring, the institute can proactively identify problems or obstacles that

may arise during application use. Corrective or improvement steps can be taken quickly based on the findings from the monitoring. In addition, regular assistance and monitoring can provide a forum for users to provide feedback regarding their experience in using the application. This can be valuable input for further improvement or customization of application features according to user needs.

The process of implementing the EDLINK application marks a significant shift from a manual system to a digital system within the Mamba'ul 'Ulum Islamic Institute, Surakarta. This transformation not only involves the introduction of new technology, but also requires a change in work culture among application users. In this context, changes in work culture include the way employees and students interact with information systems. This change, as a process, requires time and adaptation from application users (Lenz & Kuhn, 2004; Wang & Wu, 2009). Shifting from manual to digital methods can be challenging and requires patience in overcoming the possible learning curve. Awareness of the importance of adaptation and adjustment amidst technological changes is very important so that application implementation can run smoothly (Ismail et al., 2023; Ospina & Heeks, 2010).

However, challenges arose when a number of users showed resistance to this change. Some of them are more comfortable with the manual systems they have known and used for a long time. This resistance can make it difficult to fully adopt EDLINK applications. Reluctance to switch to digital systems can slow down the integration process and hinder the full benefits of the application. Barriers to adopting the EDLINK application due to resistance to change can create divisions in the use of technology at the institute. Therefore, intensive communication efforts and strategic approaches are needed that can persuade users about the benefits and advantages that can be obtained by using this digital application. This approach should not only involve explaining technical functionality, but also taking individual

concerns and preferences into account to achieve implementation success.

The implementation of the EDLINK application at the Mamba'ul 'Ulum Surakarta Islamic Institute can run more effectively and optimally by implementing several solutions to existing obstacles. This institution acknowledges that there are plans to improve information technology infrastructure. Even though no concrete steps have been taken, evaluations are continuing to be carried out to find the best solution to overcome internet connection problems and slow application access. Even though it is not yet optimal, the institution is aware of this problem and plans to improve its training program (Hernandez-de-Menendez et al., 2020; Lomu & Widodo, 2018). The plan involves the development of more comprehensive training modules and easier training accessibility. Most respondents gave positive responses to plans to increase training programs. They hope that this initiative can help overcome the confusion and difficulties they face in using the EDLINK application.

The institute emphasized its commitment to supporting changes in work culture. They plan to organize work culture coaching activities, such as workshops and discussion forums, to help users cope with the necessary changes. Most users responded positively to the institute's efforts to support changes in work culture. However, some also expressed their concerns and hoped that the transition process could be further elaborated. The institute acknowledges the existence of resistance and has taken several steps to address this problem. These efforts include improving training programs, providing technical support, and a more intensive communications approach.

Conclusion

The research results show that there are several obstacles and constraints in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta, including: 1) The information technology infrastructure at the Mamba'ul 'Ulum Islamic

Institute, Surakarta is still inadequate to support optimal implementation of the EDLINK application. This causes several problems, such as unstable internet connections and slow application access. 2) Lecturers, administrative staff and students still do not receive sufficient training and socialization regarding the use of the EDLINK application. This causes confusion and difficulty in using the application. 3) Implementing the EDLINK application requires a change in work culture, from a manual system to a digital system. This requires time and adaptation from application users. 4) There are some application users who are resistant to change and prefer to use a manual system. This causes obstacles in the adoption of the EDLINK application. Based on the results of this research, it can be concluded that there are several obstacles and obstacles in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta. Factors that cause these obstacles include limited infrastructure, lack of training and socialization, changes in work culture, and resistance factors. Recommendations for several solutions to overcome problems and obstacles in implementing the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta, include: 1) Improving information technology infrastructure, such as internet connections and hardware. 2) Provide more intensive training and outreach to lecturers, administrative staff and students regarding the use of the EDLINK application. 3) Provide regular assistance and monitoring to ensure smooth use of the EDLINK application. 4) Building a work culture that supports the use of the EDLINK application. 5) Carrying out effective communication and education to overcome resistance to change. By overcoming these obstacles and obstacles, it is hoped that the implementation of the EDLINK application at the Mamba'ul 'Ulum Islamic Institute, Surakarta can run more effectively and optimally.

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