

FROM THE TRADITIONAL CLASSROOM TO THE VIRTUAL CLASSROOM: A LITERATURE REVIEW ON THE EFFECTIVENESS OF DISTANCE LEARNING

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Abstract

This study reviews the literature related to the effectiveness of distance learning (PJJ) in the context of the transition from traditional to virtual classes. The results show that the successful implementation of distance learning is largely determined by several key factors, namely adequate technological infrastructure, teacher readiness and competence in managing virtual classes, and student engagement and discipline. In addition, support from parents and a conducive home environment are proven to play an important role in supporting students' learning process. A curriculum specifically designed for distance learning is also a crucial factor to ensure optimal student interaction and engagement. By considering and optimising these factors, distance learning can be an effective and comparable alternative to traditional face-to-face learning. This study provides guidance for education practitioners in designing and implementing distance learning more efficiently and effectively.

Keywords: Traditional Classroom, Virtual Classroom, Distance Learning Effectiveness

Introduction

The development of information and communication technology has had a significant impact on various aspects of life, including education. These technological advances have enabled a paradigm shift from traditional learning that takes place in the classroom to virtual learning that can be accessed from anywhere and anytime. (Sitopu et al., 2024); (Fawait et al., 2024); (Syakhrani & Aslan, 2024).. Virtual learning is a learning method that utilises information and communication technology, such as the internet, computers, and other digital devices, to enable the teaching and learning process without requiring the physical presence of learners and teachers in the same location. In virtual learning, learning materials are delivered through digital platforms, such as learning management system (LMS), video conference, or other online learning applications. Interaction between learners and teachers, as well as between learners, is done through various communication features available, such as chat, discussion forum, or video call. (Judijanto et al., 2024); (Sartika & Fransiska, 2024). Virtual learning offers flexibility in terms

of time and place, allowing learners to access learning materials and participate in learning activities according to their preferences and time availability. With that, distance learning, which utilises technology as the main medium in the teaching and learning process, has become a growing trend in recent years. (Ruan et al., 2022)..

Distance learning offers many advantages. Distance learning offers various advantages that can increase accessibility and flexibility in the teaching and learning process. One of the main advantages of distance learning is its ability to overcome geographical barriers. Learners can follow the learning from anywhere, without having to be physically present in the same location as the teacher or educational institution. (Iswandari, 2022). This allows individuals who live in remote areas, have mobility constraints, or have other commitments such as work or family responsibilities, to still access quality education. Distance learning also provides flexibility in terms of time, where learners can customise their learning schedule according to their preferences and time availability. (Worth, 2023).

Another advantage of distance learning is its potential to reach a wider audience. By utilising technology, educational institutions can offer learning programmes to learners from different backgrounds and different geographical locations. This opens up opportunities for individuals who may not have access to conventional educational institutions to acquire the required knowledge and skills. (Starosta, 2024). In addition, distance learning can also save costs, both for learners and educational institutions. Learners can save on transport and accommodation costs, while educational institutions can reduce operational costs related to the provision of physical facilities. As such, distance learning can be a cost-effective solution to widen access to quality education (Gordon, 2021).

In this context, it is important to review the literature on the effectiveness of distance learning. By analysing various existing studies, we can gain a more comprehensive understanding of the advantages, disadvantages, and factors that influence the success of distance learning. The results of this review are expected to provide insights for educators, policy makers, and other stakeholders in designing and implementing effective distance learning strategies. (Khotimah & Faizah, 2021).

Based on this background, this study aims to examine the effectiveness of distance learning through an in-depth literature review. The problem formulations that will be discussed in this research are: (1) How is the effectiveness of distance learning compared to traditional learning? (2) What factors influence the effectiveness of distance learning?

Research Methods

Literature research method, also known as literature study or literature review, is a research approach that involves collecting, evaluating, and synthesising relevant information from existing literature sources, such as books, scientific journals, research articles, and other reliable sources. The purpose of this method is to gain a comprehensive understanding of the topic or problem under study, identify gaps in current knowledge,

and provide a theoretical foundation for further research. (Firman, 2018); (Suyitno, 2021). In conducting literature research, researchers follow systematic steps, including formulating research questions, determining inclusion and exclusion criteria for literature sources, conducting relevant literature searches, evaluating the quality and relevance of the sources found, and synthesising and analysing the information obtained to draw conclusions and generate new insights. (Jelahut, 2022).

Results and Discussion

Effectiveness of Distance Learning Compared to Traditional Learning

Learning effectiveness is a concept that refers to the extent to which the learning process is able to achieve the predetermined goals optimally. In this context, learning effectiveness involves the interaction between teachers, students, learning materials, teaching methods, and a conducive learning environment. (Zhang & Vesnina, 2020).. Effective learning is characterised by the achievement of expected learning outcomes, where students are able to understand, master, and apply the knowledge and skills taught. In addition, learning effectiveness also includes aspects such as students' active involvement in the learning process, high learning motivation, and the teacher's ability to deliver the material clearly and interestingly. Thus, learning effectiveness is a measure of the success of the learning process that involves various factors and aims to optimise students' potential and achievement. (Xiang & Yuan, 2024).

Indicators of distance learning effectiveness include several important aspects that need to be considered to ensure the success of the learning process. First, the achievement of learning objectives, where students are able to master the expected competencies in accordance with the established curriculum. Second, students' activeness and participation in learning activities, such as attendance in virtual classes, interaction with teachers and classmates, and involvement in discussions and assignments. (Irwan et al., 2024); (Juliani & Aslan, 2024). Third, the quality of interaction between teachers and students, which includes clarity of communication, constructive feedback, and adequate support from teachers. Fourth, the availability and accessibility of learning resources, such as teaching materials, learning media, and supporting technology. Fifth, student satisfaction with the distance learning experience, which includes convenience, flexibility, and suitability to each student's learning style. By paying attention to these indicators, the effectiveness of distance learning can be evaluated and improved to ensure optimal education quality. (Mahdi, 2024).

Distance learning has become an increasingly popular alternative in education, especially in the midst of the COVID-19 pandemic that requires restrictions on social interaction. However, the effectiveness of distance learning compared to traditional learning is still a topic of debate. Some studies show that distance learning can be as effective as traditional learning if well designed and implemented. Factors such as the quality of teaching materials, interaction between teachers and students, and the

availability of adequate technology are key to the success of distance learning. (Golovkina, 2023).

However, there are also arguments that traditional learning has advantages that are difficult to replace by distance learning. Direct interaction between teachers and students, as well as between fellow students, is considered more effective in building social relationships and developing interpersonal skills. In addition, traditional learning allows teachers to more easily monitor progress and provide immediate feedback to students. These aspects can be challenging in distance learning, where interactions are limited to digital platforms. (Ni, 2024).

However, distance learning also has its own advantages. The flexibility of learning time and place is one of the main advantages, where students can access learning materials anytime and anywhere. This provides wider opportunities for students who have geographical or time constraints to keep up with their education. In addition, distance learning can also encourage students' independence and responsibility in managing their own learning process. (Azar et al., 2020).

Ultimately, the effectiveness of distance learning compared to traditional learning depends on various factors, such as the characteristics of the students, the subject being taught, and the quality of the lesson design and implementation. In certain situations, distance learning may be an effective option, while in others, traditional learning may be more appropriate. The most important thing is to ensure that the quality of education is maintained, regardless of the learning method chosen. A combination of distance learning and traditional learning, or blended learning, can also be a solution that accommodates the advantages of both approaches.

Factors Affecting the Effectiveness of Distance Learning

Distance learning (PJJ) has become a prevalent phenomenon in recent years, mainly fuelled by the COVID-19 pandemic. However, the effectiveness of this method is not always optimal and is affected by various factors. One of the main factors is technological infrastructure. The availability of stable internet and supporting devices such as laptops or tablets is an absolute requirement. Without adequate technological infrastructure, students will find it difficult to follow the lessons optimally and this directly impacts the effectiveness of PJJ. (Sholihah, 2023).

The second factor is teachers' readiness and ability to use technology for teaching. Many teachers are not accustomed to using digital platforms in their teaching, so it takes time to adapt to be effective in managing a virtual classroom. Training and technical support are crucial for teachers to effectively utilise technology and improve classroom interaction. In addition, proper curriculum development also plays a significant role. Curricula adapted for PJJ should be flexible and interactive to maintain student engagement. (jayanti, 2022).

The third factor is student motivation and self-discipline. In distance learning, students are required to have a higher level of independence compared to face-to-face

learning. Intrinsic motivation to learn as well as discipline in managing time are essential to ensure the learning material can be absorbed well. Without direct interaction with the teacher and classmates, students' motivation may decrease, negatively affecting their learning outcomes. (Guo, 2021).

Finally, support from parents and the home environment are also very influential. Parents who are actively involved in accompanying and motivating their children can increase the effectiveness of PJJ. A home environment that is conducive to learning, with a quiet study room free from distractions, greatly helps students focus on learning. In addition, coordination between schools and parents must work well to create a synergy that supports students' overall learning process. (Averina, 2021).

Thus, the effectiveness of distance learning is influenced by various interrelated factors. Adequate technological infrastructure is an important foundation for successful implementation of distance learning, followed by teachers' readiness and ability to manage virtual classes. In addition, students' motivation and self-discipline are key factors in determining how well they can absorb learning materials independently. Support from parents and a conducive home environment also play an important role in ensuring students can learn effectively. With attention and adjustments to these factors, distance learning can be optimised to achieve results comparable to face-to-face learning.

Conclusion

The effectiveness of distance learning in the transition from traditional to virtual classes shows that the success of distance learning depends on several critical factors. Firstly, technology adaptation is essential, including adequate infrastructure such as stable internet connection and supporting devices. In addition, the ability and readiness of teachers to utilise technology to teach effectively also plays a major role. Curricula designed specifically for distance and interactive learning can help maintain student engagement and improve learning outcomes.

Furthermore, student motivation and self-discipline as well as support from parents and the home environment should not be overlooked. Students who are able to manage their study time independently and have intrinsic motivation tend to be more successful in distance learning. Active parental support and a home environment conducive to learning are also very influential. By optimising these factors, distance learning can be an effective alternative and even equivalent to traditional face-to-face learning methods.

References

- Averina, O. V. (2021). Distance learning as a method of teaching piano class. *Человек и Культура*, 2, 112-120. <https://doi.org/10.25136/2409-8744.2021.2.35200>
- Azar, A., Khamis, A. H., Naidoo, N., Lindsbro, M., Gonuguntla, S., & Banerjee, Y. (2020). *Creating a 'simulacrum' of in-class learning environment using distance learning modality during the COVID-19 pandemic: Quod Erat Demonstrandum*. Query date: 2024-12-16 20:04:44. <https://doi.org/10.21203/rs.3.rs-30932/v1>

- Fawait, A., Siyeh, W. F., & Aslan, A. (2024). ISLAMIC EDUCATION MANAGEMENT STRATEGIES IN IMPROVING THE QUALITY OF LEARNING IN MADRASAS. *Indonesian Journal of Education (INJOE)*, 4(2), 657~665-657~665.
- Firman, F.-. (2018). QUALITATIVE AND QUANTITATIVE RESEARCH. Query date: 2024-05-25 20:59:55. <https://doi.org/10.31227/osf.io/4nq5e>
- Golovkina, M. V. (2023). Comparative analysis of effectiveness for distance and traditional learning technologies in the universities. *Педагогика и Просвещение*, 4, 41-52. <https://doi.org/10.7256/2454-0676.2023.4.68854>
- Gordon, C. (2021). Always Flipped? A Peer-Centred Cycle for Teaching and Learning in the English Literature Class. *Studi e Ricerche*, Query date: 2024-12-16 20:04:44. <https://doi.org/10.30687/978-88-6969-529-2/012>
- Guo, Y. (2021). Distance Classifier Ensemble Based on Intra-Class and Inter-Class Scatter. *DEStech Transactions on Computer Science and Engineering*, Query date: 2024-12-16 20:04:44. <https://doi.org/10.12783/dtcse/ccnt2020/35400>
- Irwan, I., Arnadi, A., & Aslan, A. (2024). DEVELOPING CRITICAL THINKING SKILLS OF PRIMARY SCHOOL STUDENTS THROUGH INDEPENDENT CURRICULUM LEARNING. *Indonesian Journal of Education (INJOE)*, 4(3), Article 3.
- Iswandari, A. (2022). A Student Engagement in a Virtual Class by FLIP Learning Application. *LINGUA: A SCIENTIFIC JOURNAL*, 18(1), 86-101. <https://doi.org/10.35962/lingua.v18i01.119>
- jayanti, A. D. (2022). Development of Mathematics Learning Media Based on Video Learning to Improve Distance Learning for Class VII Junior High School Students Material Numbers. *EduMatika: Journal of Mathematics and Natural Sciences*, 2(1), 15-22. <https://doi.org/10.56495/emju.v2i1.161>
- Jelahut, F. E. (2022). Various Theories and Types of Qualitative Research. Query date: 2024-05-25 20:59:55. <https://doi.org/10.31219/osf.io/ymzqp>
- Judijanto, L., Shodiqin, R., & Aslan. (2024). SOCIAL SOLIDARITY IN THE DIGITAL AGE: CHALLENGES AND OPPORTUNITIES. *Proceedings of the Indonesian National Seminar*, 2(3), 357-368.
- Juliani, J., & Aslan, A. (2024). THE BASICS OF CURRICULUM DEVELOPMENT: CURRICULUM FROM THE ASPECTS OF IMTAQ AND IPTEK. *International Journal Of Humanities, Social Sciences And Business (INJOSS)*, 3(2), 299-309.
- Khotimah, K., & Faizah, N. (2021). Application of Virtual Sevima Edlink Class with Inductive Approach to Solving Math Problems Class X MA Mamba'ul Ma'arif. *APPLICATION: Applied Science in Learning Research*, 1(2), 62-67. <https://doi.org/10.32764/application.v1i2.1533>
- Mahdi, K. (2024). Class XI Students' Science Literacy Ability Profile on Biology Material in MAN 1 KOLAKA. *JOURNAL OF DIGITAL LEARNING AND DISTANCE EDUCATION*, 3(2), 975-980. <https://doi.org/10.56778/jdlde.v3i2.277>
- Ni, A. Y. (2024). Comparing the Effectiveness of Classroom and Online Learning: Teaching Research Methods. *Teaching Your First Class*, Query date: 2024-12-16 20:04:44, 167-183. <https://doi.org/10.4324/9781032720470-11>
- Ruan, Y., Xiao, Y., Hao, Z., & Liu, B. (2022). A convex multi-class model via distance metric learning based on class-to-instance confidence. *Knowledge-Based Systems*, 258 (Query date: 2024-12-16 20:04:44), 109791-109791. <https://doi.org/10.1016/j.knosys.2022.109791>

- Sartika, E., & Fransiska, F. W. (2024). UNDERSTANDING THE STUDENTS' ENGLISH LEARNING ACHIEVEMENT AND HOME ENVIRONMENT SUPPORTS DURING SCHOOL CLOSURE TO RESPOND TO THE PANDEMIC AT PRIVATE MADRASAH TSANAWIYAH AT-TAKWA SAMBAS. *International Journal of Teaching and Learning*, 2(4), 939-953.
- Sholihah, L. (2023). Developing digital module of intermediate writing subject in virtual class (V-Class) unila learning management system in English Education Study Programme University of Lampung. *AKSARA: Journal of Language and Literature*, 24(1). <https://doi.org/10.23960/aksara/v24i1.pp360-375>
- Sitopu, J. W., Khairani, M., Roza, M., Judijanto, L., & Aslan, A. (2024). THE IMPORTANCE OF INTEGRATING MATHEMATICAL LITERACY IN THE PRIMARY EDUCATION CURRICULUM: A LITERATURE REVIEW. *International Journal of Teaching and Learning*, 2(1), Article 1.
- Starosta, V. (2024). ACADEMIC ADVISING: CONVENIENCE AND EFFECTIVENESS IN TRADITIONAL AND DISTANCE LEARNING. *Open Educational E-Environment of Modern University*, 17, 137-159. <https://doi.org/10.28925/2414-0325.2024.1710>
- Suyitno. (2021). QUALITATIVE RESEARCH METHODS CONCEPTS, PRINCIPLES AND OPERATIONS. Query date: 2024-05-25 20:59:55. <https://doi.org/10.31219/osf.io/auqfr>
- Syakhrani, A. W., & Aslan, A. (2024). THE IMPACT OF INFORMAL FAMILY EDUCATION ON CHILDREN'S SOCIAL AND EMOTIONAL SKILLS. *Indonesian Journal of Education (INJOE)*, 4(2), 619~631-619~631.
- Worth, O. (2023). A traditional intellectual for the populist right? *Capital & Class*, 47(3), 491-497. <https://doi.org/10.1177/03098168231187251>
- Xiang, H., & Yuan, Z. (2024). Association Between College Student ICT Self-efficacy and After-class Learning Boredom, Mediated by Class Enjoyment in a Blended Vocal Music Course. *Proceedings of the 2024 9th International Conference on Distance Education and Learning*, Query date: 2024-12-16 20:04:44, 322-327. <https://doi.org/10.1145/3675812.3675825>
- Zhang, W., & Vesnina, L. E. (2020). THE ARRANGEMENT OF READING CLASSES FOR FOREIGN STUDENTS UNDER DISTANCE LEARNING CONDITIONS. *Philological Class*, 25(2), 227-235. <https://doi.org/10.26170/fk20-02-20>