IMPLEMENTATION OF VIRTUAL OFFICE MANAGEMENT AND VIRTUAL ASSISTANT APPLICATIONS IN IMPROVING THE QUALITY OF LEARNING IN VOCATIONAL SCHOOLS

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Abstract

The rapid advancement of technology has revolutionized the field of education, providing new opportunities for enhancing the learning experience. This paper explores the implementation of virtual assistant technology and virtual office management in the context of education to improve teaching and learning processes. Additionally, virtual office management facilitates streamlined document sharing, project collaboration, and group discussions, promoting teamwork and enhancing the overall learning process. This paper investigates various case studies and pilot programs where educational institutions have successfully implemented virtual assistant technology and virtual office management systems. The impact of these technologies on student engagement, academic performance, and administrative efficiency are examined. Knowledge of virtual office management and virtual assistant applications (average value) increase from 4.5 for pre test to 9.5 for post test. The use of virtual assistants in improving the quality of learning from 45% before training to 100% after training. The use of virtual office management in improving the quality of learning from 40% before training to 90% after training. Furthermore, the challenges faced during implementation and strategies for overcoming them are discussed.

Keywords: virtual office, virtual assistant, artificial intelligence

1. INTRODUCTION

Information technology has become an inseparable part of human life today. In the field of education, information technology plays a crucial role in improving the quality of learning and teaching processes. The global demands on education require continuous adaptation to enhance educational quality, particularly in the use of information and communication technology in the realm of education, especially in the learning process (Haris Budiman, 2017). The use of information technology in education can help students learn more effectively and efficiently, as well as assist teachers in delivering materials in a more engaging and interactive manner (Setyowibowo, 2017). Additionally, information technology can be utilized to enhance collaboration and communication between students and teachers, thereby fostering social interaction and learning. It also plays a pivotal role in improving the quality of education and making the teaching-learning process more effective and efficient (Tirri, K., et al., 2018). Therefore, it is essential to continually enhance the use of information technology in education to maximize its benefits for students and teachers.

Education is a critical pillar in leading towards a better life by fostering physical and psychological development. Education is also closely associated with transferring knowledge to achieve the learning process. In Article 1 of Law Number 20 of 2003 concerning the National Education System, it is stated that: "Education is a conscious and planned effort to create a learning atmosphere and process so that learners actively develop their potential to have spiritual strength
self-control, personality, intelligence, noble character, and the skills needed by themselves, society, nation, and state." Technological advancements present potential in various fields, especially in education, and thus require positive and adaptive responses to meet the challenges of 21st-century learning complexities (Aziz Hussin, 2018). The use of technology in education has become a significant and frequently discussed issue in various organizations (Ferguson et al., 2016; Forman et al., 2018). The existence of technology in the world of education serves as a means to deliver learning programs, both unidirectional and interactive (Husaini, 2014). The use of technology has made distance learning possible and encouraged greater innovation in creating learning methods inside and outside the classroom (Allan & Taylor, 2017).

Based on observations and preliminary studies in the former Surakarta Residency region, it is evident that many teachers have not fully maximized the use of application-based learning media to support the quality and success of learning activities in the virtual office environment (Patković, Selman. 2022). Moreover, teachers also need a virtual assistant to serve as a digital learning resource to enhance their pedagogical skills in keeping up with the latest information technology developments, especially in the field of education. The objectives of this Community Service Training are as follows: 1) to improve teachers’ understanding and skills in developing learning using information technology to become professional educators, 2) to enhance learning about virtual office management through e-learning information systems, and 3) to introduce and implement virtual assistant-based digital learning through the Chat Open AI application.

2. METHODS

Community Service Program in the form of training to improve the quality of learning through the implementation of virtual office management and virtual assistant applications at Vocational Schools. This activity was held on July 14, 2023, offline at Building A FKIP with 2 speakers. The first speaker was Anton Subarno, S.Pd., M.Pd., Ph.D., who delivered a presentation on the introduction to the use of artificial intelligence in the world of Education and learning. The second speaker was Winarno, S.Kom., M.Pd., who discussed the implementation of virtual office management and virtual assistant applications. The stages in this service activity are as follows: 1) Socialization through the MGMP forum by explaining the training objectives to improve the quality of learning using virtual office management and virtual assistant applications at Vocational Schools in Surakarta City. 2) Conducting a pre-test for the teachers. 3) Providing materials and training on virtual office management and virtual assistant applications. 4) Conducting a post-test. 5) Evaluation.

3. RESULTS AND DISCUSSION

The training materials were delivered by the Community Service team from the Communication Technology and Office Research Group, Office Administration Education Study Program. The topics covered in the training were related to the use of virtual office applications, knowledge about the development of digital world artificial intelligence (AI) in Education, and the implementation of virtual assistants using ChatGPT. During the training, a tutorial was provided on using the Promp Chatbot from OpenAI to assist in creating Higher Order Thinking Skills (HOTS)-based questions, developing Lesson Plans (RPP), and other academic papers. Furthermore, the participants were given training on creating quick and creative presentations using tnome.app, resulting in engaging teaching materials. Finally, the training included the implementation of virtual office management using Asana. Teachers were able to create sample virtual office management projects by scheduling tasks, conducting virtual meetings, and monitoring job descriptions virtually.

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From the figure, it can be observed that there is an improvement in teachers’ skills and knowledge from the pre-test with an average score of 4.5 to the post-test after receiving training, with an average score of 9.5.

In the above figure, it can be observed that the usage of ChatGPT has significantly increased from 45% before the training, indicating that most teachers were not aware of and using virtual assistants in learning. After the training, the majority of teachers, which is 100%, started using virtual assistants.
Figure 3. Usage of Virtual Office Management in Learning.

In the above figure, it can be observed that the usage of Virtual Office Management has significantly increased from 40% before the training, indicating that most teachers were not aware of and using Virtual Office Management in learning. After the training, the majority of teachers, which is 90%, started using Virtual Office Management overall.

4. CONCLUSION

Through this community service activity, the understanding and skills of teachers in developing technology-based learning in the field of virtual office management can be enhanced, making them more professional educators. Teachers also become aware of and implement digital learning based on virtual assistants through the Chat Open AI application. Additionally, this training contributes to improving the quality of learning in Vocational Schools. This training marks the beginning of the government's efforts to prepare professional and competent teachers. The results of this community service activity enable teachers to enhance their soft skills or abilities in implementing and utilizing technology and information-based learning media for the learning process. Overall, this community service activity aims to equip teachers with the necessary knowledge and skills to effectively integrate technology into their teaching methods, thus enhancing the learning experience and outcomes for students in Vocational Schools.

REFERENCES


Tirri, K., et al., 2018. Education for Creativity and Talent Development in the 21st Century