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EXPLORING THE PROSPECTS AND OBSTACLES OF E-LEARNING IN TEACHING THE COURSE UNDERSTANDING DISCIPLINES AND SUBJECTS IN TEACHER EDUCATION

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Abstract
Given the growing importance of e-learning in teacher preparation courses, it has quickly evolved into a necessary element. Within classes like "Understanding Disciplines and Subjects," several fresh opportunities and hazards have emerged. The challenges of introducing e-learning in this field are explored in this paper. The difficulties instructors face daily regarding teaching strategies, technology tools, and their physical settings is examined in this essay. The paper explores a broad spectrum of topics, including the challenge of converting theoretical academic information into interesting online forms, the disparity in access to digital tools, and the sad level of engagement in virtual worlds. Still, the prospects are as alluring as they were years ago. E-learning has spawned new pedagogical ideas such multimedia and flipped classes, which promote more group learning and quicker knowledge availability. Apart from helping students to develop a broad knowledge foundation, this curriculum helps teachers to effectively include concepts from various domains into their classes, so regardless of the cultural backgrounds of their students. This research will investigate, via pre-service teachers as a case study, the advantages and disadvantages of online learning. To thus attain this, the present literature is reviewed via a survey. It also provides essential knowledge and logical responses to address any possible problem. Finally, online teacher preparation can help students grasp a broad spectrum of courses really well. Still, great preparation, resource allocation, and a dedication to continuous development are absolutely vital.
Keywords: *e-learning, flipped classes, multimedia, pedagogical ideas, pre-service teachers, Understanding Disciplines and Subjects*

Introduction

Teacher preparation programs, particularly first transdisciplinary courses, have seen substantial content and structural changes since the advent of online education. Because of the proliferation of online education, this change has occurred. Teaching complex and abstract knowledge still offers many difficulties even if e-learning has many benefits in terms of bringing fresh ideas and tools into the classroom. This study intends to investigate the advantages and disadvantages of online learning from the point of view of those under training to be teachers.

Teachers who want to properly equip future generations to meet their always changing needs for their pupils must fully grasp these dynamics. This is justified by the growing responsibilities students are supposed to fulfil.

Review of Related Literature

Since the beginning of the 2000s, there has been a big rise in the use of online education to train teachers. In 2007, Garrison and Vaughan found that blended learning strategies, which combine standard face-to-face teaching with online parts, have helped students learn more and become more involved. Alternatively, it has been shown that these methods can also help people learn better. Moreover, the learning process has been shown to be enhanced by integrated learning techniques. Although adopting digital media to teach ambiguous topics offers specific advantages, it also presents significant downsides. A primary cause of these challenges is the structure of the classes and themes Anderson (2008) demonstrates that a subset of pre-service instructors lacks the necessary self-discipline to effectively implement e-learning in this context. Even with these benefits, a significant number of students continue to face challenges related to motivation and engagement in online learning.

The "digital divide," which underscores inequalities in access to technology and the internet, is a critical concern. The "digital divide," referring to disparities in internet and technology access, presents an additional problem. Because of this, online education might not be as effective. Following this, the digital gap is an issue. This has been a topic of worry for several experts recently, including Teräs (2022).

Even though it has some problems, online learning has shown a lot of potential in helping people work together and think about themselves. Johnson and Aragon wrote in 2003 that online platforms encourage peer interaction and self-reflection in the society where they are used. It is essential for students to have both of these skills to fully grasp complicated educational ideas, like how different careers are connected. There has been a growing interest in using video to help teach students difficult and varied ideas in the past few years.Mayer (2009) asserts that multimodal learning is advantageous as it facilitates comprehension through the integration of auditory and visual examples. This emphasises the advantages of acquiring knowledge via video content. Mayer's assertions are substantiated by the increasing significance of video-based learning. This holds particular significance when analysing intricate topics such as the historical evolution of various regions throughout different periods.

Challenges

While talking about how to use e-learning to educate different subjects and professions, the inequality in access to technology often comes up. This is because there is a disparity in the levels of access to technology, which is what the term "digital gap" describes.Pre-service teachers from economically disadvantaged households may encounter increased difficulties in interacting with the available online curriculum (Teräs, 2022). This is attributable to their possible need for a reliable connection to digital devices or the internet.

Engaging in a virtual learning environment presents more significant obstacles than a traditional classroom, as sustaining engagement and motivation is sometimes more intricate. Pre-service teachers may have feelings of isolation when they lack opportunities for face-to-face connection and have no ways to connect with one another. Anderson (2008) says that

this might make people less interested in talking about difficult issues and less motivated in general. Theoretical knowledge is important for teaching students about the features of different subjects and disciplines, and it is often connected to a particular field of study.

When teaching students the characteristics of disciplines and subjects, theoretical knowledge—often associated with a certain field of study—is usually rather crucial. This is because abstract content generally relates to a singular study. Utilising e-learning platforms might pose a considerable obstacle in understanding content that is particularly complex. Mayer (2009) says that one of the hardest things for instructional designers is making sure that students can understand ideas when they use interactive or multimedia learning formats.

For pre-service teachers, it might be hard to focus on the subject being taught if they don't know how to use the digital tools needed for e-learning effectively. According to Johnson and Aragon (2003), in order for educators to effectively help students in their online learning, they need to have a solid understanding of technology.

Opportunities

Aspiring teachers today have more materials at their fingertips than ever before because to the proliferation of online learning platforms. These materials encompass scholarly articles, case analyses, and global multimedia resources. These materials are gathered from various regions across the globe. Garrison and Vaughan (2007) propose that the integration of several views facilitates a more profound understanding of varied subjects and issues. Adaptive learning environments that may modify to changing conditions Online education enables learners to interact with content at their convenience and provides the autonomy to establish their own study schedules.This versatility proves beneficial when addressing challenging subjects (Anderson, 2008).This is attributable to its capacity to facilitate the understanding of complex topics. This is due to its capacity to facilitate the analysis of complex concepts. This is due to its capacity to facilitate the analysis of complex concepts. Collaborative Learning: Online discussion boards and forums serve as useful venues for enhancing collaborative learning, enabling pre-service teachers to engage with peers from diverse educational backgrounds and different geographical locations. This facilitates a more profound understanding of the linkages across many disciplines and topics across different contexts (Johnson & Aragon, 2003).

In flipped classrooms, students engage with content online before participating in more concentrated and interactive sessions with instructors (Garrison & Vaughan, 2007). Online education facilitates the incorporation of innovative pedagogical techniques, such as flipped classrooms, which exemplify a contemporary learning paradigm. Furthermore, there are options for instruction pertaining to online learning. Mayer (2009) contends that multimedia technologies improve comprehension by delivering information in many formats. This facilitates the concurrent integration of many learning approaches, thus improving understanding.

Conclusion

There is a possibility that there will be a big shift in the structure of the programs that teaching programs are built to train teachers. This is a consequence of the arrival of online education, which has the potential to bring about such developments. Conversely, it introduces numerous whole new potentials and challenges that remain unrecognised. This is an occurrence that has taken place. Identifying viable solutions to issues with engagement, technical competency, and the digital divide is achievable through the use of novel pedagogical methods, adaptive learning environments, and enhanced resource accessibility.

There are several approaches to closing the digital gap, some of which are mentioned above. Numerous possible courses of action are covered in more detail in the following paragraphs than they were in the previous ones. In the next paragraphs, a variety of potential courses of action are discussed in greater detail than they were previously articulated. Just for a moment, try to envisage the possibility that the potential of online education will be fully realized within the framework of instructor training programs. This is just a thought experiment. In the case that this takes place, it is of the utmost importance to address any technological deficiencies, encourage student engagement, and change the curriculum in order to bring it into conformity with the expectations of an instructor who will be teaching in the future. It is imperative to engage in this action to fully capitalise on the educational opportunities afforded by the internet. The implementation of e-learning can substantially enhance students' comprehension of many subjects and courses designed for teacher education, contingent upon careful introduction and consistent assistance. This is contingent upon the endorsement of e-learning utilisation.

References

1. Anderson, T. (2008). *The Theory and Practice of Online Learning* (Fifth Edition). https://www.aupress.ca/books/120146-the-theory-and-practice-of-online-learning/
2. Garrison, D. R., & Vaughan, N. D. (2007). *Blended Learning in Higher Education*. https://doi.org/10.1002/9781118269558
3. Johnson, S. D., & Aragon, S. R. (2003). An instructional strategy framework for online learning environments. *New Directions for Adult and Continuing Education*, *2003*(100), 31–43. https://doi.org/10.1002/ace.117
4. Mayer, R. E. (2009). *Multimedia Learning*. https://doi.org/10.1017/cbo9780511811678
5. Teräs, M. (2022). Education and technology: Key issues and debates. *International Review of Education*, *68*(4), 635–636. https://doi.org/10.1007/s11159-022-09971-9.