

Exploring the impact of online learning on university students' classroom interactions

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Abstract. Online learning has evolved over the past 50 years, from early distance learning through postal systems to today's digital platforms. In recent years, the COVID-19 pandemic has accelerated the adoption of online learning, resulting in increased enrollments and opportunities for learners to improve their skills and employment prospects. Interactional competence, which refers to the skills required for effective communication and support in virtual environments, is an important component of online learning. The development of interactional skills has a positive impact on learning outcomes, engagement, collaboration and social presence. Online learning has both positive and negative effects on classroom dynamics. Online platforms allow students to engage in a variety of ways regardless of geography, fostering diversity and accommodating a wide range of learning preferences. However, the lack of nonverbal cues and face-to-face interaction can hinder teacher-student connections and make it difficult to assess learning in real time. Recognizing these effects is critical to overcoming limitations and improving the quality of online education. Online learning has become a dynamic educational paradigm with both advantages and disadvantages. The digital transformation of education continues to change the learning experience, highlighting the need for interaction skills and overcoming barriers to ensure successful and meaningful online education.

Keywords: Online Learning; Interactive Competence; Digital Transformation.

1. Introduction

In an age of technological innovation and unprecedented access to information, as online learning enters the field of vision of education, it is gradually transforming the field of education. This unique pedagogical technique uses the power of computer programs to break down the walls of traditional classrooms, allowing students to engage with educational information both inside and outside the classroom. From its remote origins, online learning has grown into a participatory and influential style of education that has promoted inclusivity, flexibility, and the democratization of knowledge over the past half century. This essay explores the many facets of online learning, including the development of interactional capabilities, the impact on classroom dynamics, and the historical trajectory. It also aims to provide a thorough understanding of the complexities surrounding this revolutionary educational paradigm by evaluating both the positive and negative aspects of online education.

2. Organization of the Text

2.1. The overview of online learning

Online learning, also known as e-learning, is the practice of teaching students' material and skills through the use of computer applications that facilitate learning both inside and outside the traditional classroom [1]. PLATO, whose full name is Programmed Logic for Automatic Teaching Operations, developed by Professor Don Bitzer of the University of Illinois, was the first computer-based educational tool. Initially, PLATO was used to deliver computer-based education to improve student literacy. However, it quickly outgrew its educational role and became a cornerstone of modern multi-user computing. PLATO is the forerunner of modern e-learning platforms such as Blackboard and WebCT [2]. Online learning became more participatory in the 1970s with the use of e-learning by the Open University in the United Kingdom. Their education system had historically prioritized distance

learning. People did not have personal computers in their homes until the 1980s, when the first Mac was invented, making it easier for individuals to learn about specific topics and hone specific talents.

In the following decade, virtual learning environments gained traction, giving people access to a wealth of online knowledge and e-learning opportunities. In the 2000s, corporations began using e-learning to train their employees, introducing new and innovative online learning tools [3]. Online education has progressed much beyond its basic capabilities. Current improvements in online learning enable students to actively participate in the learning process through frequent feedback and assessments. As a result, in terms of effectiveness, the teaching method is now on level with classroom learning [4]. Online education is now available to people worldwide from all different backgrounds due to technological improvements. In the United States, almost all postsecondary institutions offer at least one online course, ranging from full Ph.D. programs to non-degree programs [5].

The COVID-19 pandemic has had a significant impact on the expansion of online learning. The outbreak has led to a surge in online student enrollment. According to recent statistics, due to the COVID-19 pandemic and government mandates for social distancing, a significant number of university students have participated in at least one online course [6]. Online learning has played a significant role in the process of learning. During this period, students have gotten increasingly comfortable with a variety of online tools, increasing the likelihood that more classes may be held online in the future.

2.2. Interactional Competences of Online Learning

During the process of online learning, interactional competence plays a crucial role in elevating and mediating the learning journey of students and teaching experience of teachers. The ability to use interaction as a technique for mediating and supporting learning during synchronous online instruction is referred to as interactional competence [7]. In order to effectively use interaction as a technique for mediating and supporting learning, teachers need to possess a specific set of skills. The ability of teachers and learners to use interaction as a tool to mediate and support learning is referred to as interactional competence in the classroom [8]. In the virtual learning environment, fostering interaction skills between educators and students promotes an interesting and productive journey of knowledge acquisition.

In the world of online learning, interpersonal skills are critical and essential. Their importance stems from a number of compelling factors, each of which increases the effectiveness of the online learning experience as a whole. The development of interactional skills has been shown to improve learning performance and outcomes in online environments. By actively participating in interactions, learners increase their motivation, focus, and participation, which leads to a deeper understanding of the material and promotes better academic growth. Furthermore, these skills foster a climate of participation and collaboration among students. The learning process is enriched when teachers support their students' ability to collaborate, express their ideas openly, and engage in thought-provoking discussions with their peers. Moreover, the development of social presence in online learning environments is facilitated by the ability to engage in meaningful interactions. Through interactive engagement, learners build relationships with their peers and instructors that foster a sense of connection and belonging, which has a positive impact on their overall engagement and motivation to learn. Finally, communication skills, which are critical to online success, can be improved. Students have the opportunity to practice and refine essential skills such as expressing thoughts clearly, listening attentively to others, and engaging in polite conversation. These communication skills are critical for success in both the workplace and academic environments. In summary, developing interactional skills in online learning is a complex process that greatly enhances and facilitates learning. These skills enable learners to thrive in the digital educational environment by promoting learning performance, collaboration, social presence, and communication skills [9].

2.3. The influence of online learning on university students' classroom interactions

2.3.1. The positive influences

Online education offers more spaces of freedom for both teachers and students. By removing the constraints of physical location, courses can be accessed from anywhere, providing flexibility and convenience. Asynchronous courses, in particular, allow instructors to pre-record and upload lectures at the beginning of the week, giving students the freedom to view the content at their own pace and time [3]. This arrangement empowers learners to take charge of their schedules and study when they are most productive. Moreover, the accessibility of online courses transcends geographical boundaries, making education available to a wider audience, including those who might not have had access otherwise [3]. The virtual learning environment not only facilitates learning but also promotes inclusivity and diversity in the educational landscape.

In traditional classrooms, some students may be reluctant to actively participate due to shyness or nervousness about speaking out loud. However, online classrooms offer alternative ways for students to actively engage with the material and contribute to discussions. Platforms such as Zoom offer chat frames that allow students to type their ideas and responses during class discussions when verbal communication is not possible. This feature encourages active participation from all students, creating a more inclusive and dynamic learning environment. As a result, even introverted students can feel more comfortable expressing their thoughts and sharing their perspectives, leading to enriched classroom interactions and a deeper sense of community.

Another important positive influence of online classes is the ease of communication between students and instructors. In on-campus courses, some students may be reluctant to ask questions in a large classroom setting for fear that their inquiries will go unnoticed or be ignored. This can lead to unresolved doubts and hinder the learning process. However, online classes overcome this challenge by providing a chat box where students can ask questions at any time during the lesson. Teachers can respond to these questions promptly, either at the end of the lesson or immediately after they are raised. This direct and efficient communication fosters a supportive learning environment and ensures that students' concerns are heard and addressed in a timely manner. As a result, students gain a better understanding of the material, leading to improved learning outcomes. Overall, the increased flexibility, inclusive participation, and efficient communication channels of online education make it a compelling option that complements traditional learning methods and empowers students and educators alike.

2.3.2. The negative influences

Dependence on consistent Internet access is one of the drawbacks of online learning. Poor or unreliable Internet connections can severely limit a student's ability to learn effectively. Lectures that take a long time to load, videoconferences that end abruptly, and difficulty accessing course materials can be frustrating and impede learning. In addition, access to high-speed Internet can be even more challenging for students in rural or impoverished areas, widening the digital divide and reducing their opportunities for education. The seamless learning experience provided by traditional classrooms is severely compromised by reliance on technology and Internet connectivity.

Online learning often results in little to no meaningful connection between students and teachers, leaving them isolated. Teachers find it difficult to encourage lively debates and group activities in virtual classrooms, which limits students' ability to collaborate and interact with their classmates. The lack of face-to-face contact can make it difficult for students to develop strong relationships with their teachers and peers, which can lead to a less encouraging and stimulating learning environment. The lack of social interaction can cause students to feel isolated and disengaged, which can affect their motivation and overall academic experience.

The inherent distance that online learning creates between student and teacher is a notable disadvantage. In traditional classrooms, teachers can tell whether students are understanding by their faces and body language. In virtual environments, however, this nonverbal feedback is often lost, making it difficult for teachers to effectively assess student understanding [10]. As a result, teachers

may find it difficult to modify their instructional approach or provide timely support to struggling students. This discrepancy between what students truly understand and how they feel they understand can hinder their academic progress.

Online learning makes it more difficult for instructors to determine whether students are really understanding the material because they cannot see students' facial expressions and body language. In a brick-and-mortar classroom, instructors can tell if students are understanding by looking at their faces and making eye contact. However, the lack of this visual feedback in online classes makes it difficult for instructors to gauge how well their subject matter is being understood. Believing that their lack of understanding will be harder to detect in a virtual environment, students may be reluctant to ask questions or seek clarification. As a result, instructors may inadvertently move forward with the curriculum while failing to provide some students with the support and guidance they need. There are a number of drawbacks to online education. Students' learning experiences can be severely compromised by connectivity issues, low engagement, a sense of distance, and a lack of nonverbal cues. In order to develop practical solutions to address these issues and improve the overall standard of online education, it is essential to acknowledge these barriers.

3. Conclusion

Navigating the online learning environment presents a complex tapestry of opportunities and obstacles. As technological advances continue to transform the educational landscape, interactional skills emerge as a critical aspect that promotes effective communication and encourages participation in the virtual environment. While the benefits of online learning—flexibility, variety, and simplified communication—highlight its potential for change, the drawbacks underscore the importance of removing barriers to smooth learning experiences. The intrinsic dynamism of online learning requires ongoing research and innovation to capitalize on its advantages while limiting its weaknesses. Educators and stakeholders can collaboratively shape the trajectory of online learning and ensure its continued development as a powerful tool for accessible, effective, and meaningful education in the digital age by understanding its historical evolution, the cultivation of interactional skills, and the intricate interplay of influences on classroom dynamics.

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