

Student Interaction, Teacher Competence, and Technology in Online Learning

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ABSTRACT

The learning environment for online learning during the epidemic has undoubtedly changed from that of earlier learning. The shape of the role of student-teacher interactions in delivering online learning is the topic of focus in this article. Previous learning activities before the pandemic permitted face-to-face engagement. The ability of the teacher to facilitate learning activities with technology is a factor that cannot be separated from any learning and software application knowledge. As a medium, the electronic learning programme must be flexible enough to respond to the epidemic situation at hand. It affects how in-depth online learning is conducted in order to achieve fully relevant learning. Technology, which includes gadgets, internet restrictions, and signals, has intensified criticism of these educational service providers' lack of readiness to support online learning.

Introduction

Numerous schools have adopted the policy of online learning as a result of the impact of the Covid-19 epidemic. Virtual The Ministry of Education and Culture, addresses the policy which allow teachers and students to learn during the epidemic through online learning in virtual environment. Cognitive skills must result in insightful learning. The core of meaningful learning is learning that uses a unique technique and strategy to connect new knowledge with prior student knowledge so that learning may

be understood easily. Undoubtedly, successful learning allows purposeful education. Possessing a positive learning environment is another factor that affects learning. This environment can be influenced by a variety of factors, including student engagement and teacher proficiency. In this regard, digital technology plays a significant role in online learning. The learning process highly depends on interaction. Interaction is crucial because, in order for the knowledge imparted to be effectively absorbed, a tight, lasting relationship between the teaching staff and students must be established during the teaching and learning process [2]. Evaluation of the ways in which students have succeeded in understanding the effectiveness of over conventional methods is essential. Numerous studies have demonstrated that due to a lack of direct interaction, students' incredulity during online learning is higher than it is during face-to-face teaching. It's quite difficult to produce excellent learning when you're teaching in a place where technology is highly advanced. Teachers need to have better potential and skills, giving IT instructors the knowledge and abilities required for successful online learning [3]. Technology in education serves as a bridge for proper learning while preserving direct learning viable. Applications like Google Classroom, Google Meet, WhatsApp, and other virtual classes with all of these platforms are utilized to assist online learning. Digital learning should also not sacrifice the degree of in-person education that everyone seeks. Has the use of online learning resulted in meaningful learning, is the question. Do students and professors cooperate well in online courses? Has the trainer already reached the limits of their ability for using technology, executing strategies, and learning techniques in online learning? Does the technology employed for online learning effectively meet the needs of diverse student? Has meaningful learning been demonstrated through student-teacher relationships, teaching skill, and technology? Therefore, this article identifies student-teacher interactions, instructor competency, and technology in online learning as factors that contribute to effective learning.

Research Methods

The method applied is a systematic literature review, which identifies, analyzes, and interprets all results on the research issue to meet previously established research questions (Kitchen ham& Charters, 20017). Using the search terms "online learning" and "meaningful learning," articles were discovered online. The preferable reporting item for a meta-analysis and systematic review is the method utilised. The purpose, author, publication year, number of respondents, techniques deployed, research findings, and suggestions for intensive analysis were all analysed and summarised for each paper that had made it through the selection process. Commencing with a review

of the descriptions and abstracts for every search result, the search procedure matches them to predefined standards. 42 research articles were identified if all keywords were evaluated in a research database. Nevertheless, when the title was inspected, it was observed that the identical article was duplicated in two databases. To find the answers to the questions about online learning, student interaction, and technology, the articles are compared. In addition, elements affecting student-teacher interaction, teacher competence, and the role of technology were discovered, and it was then determined whether they could produce an effective interactive website in the situation of today's distance courses. In the online learning environment, dialogue or interaction is a key factor.

Result and Discussion

Student-Teacher Connections in Elearning

Changes in student-teacher relations must be taken into account in order to benefit from online learning [5]. Throughout this connection, critical learning and greater knowledge exploration were achieved. Although interactions between students and educators are not entirely linked to improving cognitive ability, they are nonetheless focused on personal development and cognitive consequences. All of the students' senses are forced to be stimulated during the learning process, which encourages them to learn independently and actively [6]. Because of this fact, students' reasoning will be affected and students won't be able to think objectively if they easily remember facts and encounters. Because it can enhance student' ability to interpret, teachers can create a more relaxed learning atmosphere in the classroom. An attractive classroom environment is created by students and teachers staying open with one another. These offer facts about interactions between both teachers and students, the suitability of the learning environment, the commitment of students to their academics, and a fun learning environment. The interaction between the student's teacher, the ability of the learning environment, and the persistence of learning have all been associated with the comfort of learning. Further study shows that the motivation to learning and the learning environment are the two primary factors that affect how comfortable learning becomes [7]. To make online learning in the classroom more engaging, teachers must employ a range of techniques and ideas. In order to foster connection and communication among students and to encourage active involvement, teachers might obtain group activities. To raise the standard of traditional learning experiences, there are seven effective online teaching concepts that act as an assessment agenda. The basic idea is that students should cooperate with one another and with their teachers,

promote active learning, receive prompt feedback, adhere to deadlines for tasks, be made aware of high expectations, and value each student's unique abilities and learning preferences. Different degrees of some principles have been applied to e-learning situations. These seven guidelines serve as the standards through which evaluators analyze education and learning in a virtual classroom. The assessment generated a list of lessons learned focused on each source, includes student responses. As a result, each principle used to have a distinct set of recommendations that were significantly more beneficial to teachers trying to enhance the quality of their training and who demand more precise strategies to put into effect right away. Teaching quality "reflect[s] the performance of all aspects of the educational experience," based on The Consortium's (OLC) Five Pillars of Online Education Quality. The most significant element in maintaining continuous learning is student satisfaction, as per OLC. Finally, studies have shown that student satisfaction can decrease wear rates and encourage students to engage in more web - based learning.

Educator proficiency

Educator expertise comprises all of the facts, abilities, and attitudes, a teacher must possess to perform his or her job responsibilities successfully. According to P3G, there are ten areas of focus that instructors must possess in order to be considered professional, including: (a) mastery of teaching materials; (b) managing the teaching and learning process; (c) managing the classroom environment; (d) using media/learning resources; (e) mastery of educational foundations; (f) managing teaching-learning interactions; (g) assessing learning achievement; (h) recognition of extension guidance functions and services; and recognition and organisation of school.

In the learning process, it's critical to have competent teachers and a solid educational system. The same is true for online education. Skilled instructor ability can boost learner enthusiasm. Developing a passion and enthusiasm for studying depends on motivation to learn. Students that are enthusiastic and passionate about learning will be successful in acquiring valuable knowledge. As a result, instructors' professionalism has a significant impact on student accomplishment.

Teacher competencies that can be built in online learning include improving the learning experience flexibly according to the learning style, assessing the efficiency in compiling instructional learning content, offering and facilitating the ease of difficult learning, supporting "cooperative" learning, and providing personalized and varied instructions. It is feasible to learn the same knowledge at different speeds or to

attain different learning goals by using diverse feedback methods.

CONCLUSION

In general, web - based learning platforms give students access to a setting where they are not restricted by time or space. Online education can remove obstacles posed by factors such as distance, disability, and poverty. There are still issues with student-teacher relationships, technology mastery, and teacher competency in developing meaningful learning that must be addressed before online learning can be said to have overcome all of its current challenges, solutions, and projections.

Based on the study, students were dissatisfied with learning results during online learning. Students cannot immediately access the course materials or teaching strategies used in online instruction. The inability of teachers to master technology, the absence of online teaching expertise, and the fact that educators lack the necessary online learning practices to provide effective learning all contribute to an unfavorable environment for online learning.

As a result of the COVID-19 epidemic, online learning has a negative influence on meaningful learning, which has an impact on student learning results. The diversified learning model used during the Covid19 epidemic was deemed to be good in theory, but training is required to enhance instructors' technological literacy and competence in selecting the most effective approaches and strategies for creating meaningful learning. in order to achieve meaningful learning through online learning with effective teacher-student interactions, technological expertise, and instructor competency.

However, behind the scenes of online learning, there are not only negative aspects but also positive ones that might revolutionize how Indonesian education looks and make it more contemporary.

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