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PEDAGOGICAL USES OF TECHNOLOGY IN MODERN EDUCATION

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Abstract

Teaching is all about familiarising students with new concepts and instilling information and skills that they can apply later in life. The scope of technology in the teaching-learning process is discussed in this article. Technology is a vital instrument in modern education because of its pervasiveness and the enormous impact it may have on the teaching-learning process. The benefits of technology can help to speed up and improve the learning process. Technology integration in education can help students develop multitasking abilities while also reducing the challenges that come with traditional classroom pedagogy. Technology can be used in schools to address instructional challenges and educational concerns in a student-centered learning environment where teachers serve as facilitators and mentors. It should also be highlighted that incorporating technology into classroom learning does not diminish a teacher's importance, and this research explores the reality that technology can only be used as a supplement to the instructor, not as a replacement. Teachers must also consider technology from a broad

viewpoint in order to provide exploratory learning opportunities for both their students and themselves.

Keywords: Technology, pedagogy, conventional learning, and modern education are all terms used to describe the teaching-learning process.

Introduction

Teachers, students, and the teaching-learning process have all changed dramatically since the gurukulas of ancient India to the smart classrooms of the digital era. This means that teachers and the teaching-learning process must be fluid and adaptable in order to satisfy students' thirst for knowledge. Teachers today encounter numerous obstacles that obstruct the learning process. Teachers can use technology to impart effective education and satisfy the educational outcomes of today's curriculum. Technology can assist easy learning and drive home the point in ways that traditional classroom learning cannot. E learning not only aids in the achievement of curriculum objectives, but it also makes the classroom exciting, provides a good teaching



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experience for the teacher, and provides a memorable learning experience for the student.

Education: Traditional vs. Modern

In the past, enthusiastic students were taken to gurukulas to get education from the gurus in order to satisfy their intellectual thirst. The gurus' duty of teaching knowledge and wisdom was made easy and overpowering by their high moral ideals, which included obedience, tremendous reverence for the instructor, and high levels of focus and reception. Later generations of instructors also had a majority of studious students, which made even their job much less stressful. However, today's teachers face a number of challenges and roadblocks that operate as roadblocks in the teaching-learning process.

In a traditional classroom, the instructor is in charge of the entire group. Textbooks are the major means of imparting education. Because the assignments and homeworks given to all students cannot be thoroughly reviewed or evaluated, the assessment is incomplete, and learning is unsuccessful. We all know that in a traditional classroom setting, every kid cannot be prioritised. As a result, the majority of the time, children's particular educational needs go unmet. The typical classroom's ineffectiveness is exacerbated by the size of the class, the scope of the syllabus, and the time constraints. Due to a variety of factors, including a lack of motivation and difficulty understanding some subjects or topics, students become

accustomed to rote learning. As a result, it is clear in the vast majority of circumstances that the anticipated goals will not be accomplished.

By incorporating technology into education, such practical obstacles as monotony, indiscipline, and boredom caused by traditional classroom learning can be readily handled. With the use of technology, learning can be made more entertaining, interactive, pleasurable, and engaging. Because young minds find technology fascinating and are drawn to technology-driven modern gadgets, they can be more easily engaged in the learning process than with any other traditional mode of education. Furthermore, digital learning addresses students' particular issues and allows them to learn at their own pace. Students' creativity is encouraged since they are given the opportunity to explore and solve problems in their own unique ways. Distraction from the material, which is one of the most common problems in a traditional classroom, can be surprisingly solved by laptops, iPads, and cell phones, which are considered as technologies that distract students.

In most traditional classrooms, the educational outcome of lifelong learning remains a myth. Teachers can benefit from technology by making their job of effective teaching and sparking excitement and curiosity in students much easier. When compared to a drawing on a blackboard, having a 3D perspective of an object has undeniably good effects on student learning. The retention of learned knowledge, which is a typical problem, might be hampered by technological intervention.



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Students are more engaged in the themes and subjects they learn when technology is included into the sessions. Technology is used to implement new teaching methods that inspire and motivate kids to learn. The use of technology-based teaching methods and tools keeps the students engaged.

Students are engaged and their talents are being developed. Technology in education can bring new, fascinating components to the ideas and lectures that are presented. "Using technology is different from teaching using technology," says Associate Professor Teresa Foulger of Arizona State University's Mary Lou Fulton Teachers College, who directs the Teacher Ed Technology Competencies initiative. Teaching with technology necessitates two additional layers of knowledge: a thorough understanding of the curriculum and ideas for how technology can help students learn more effectively. As a result, learning to teach with technology requires the integration of three distinct skill sets: technological skills, curriculum knowledge, and pedagogical knowledge."

Methods

Examining how technology can be used

Game-based learning systems have the potential to be one of the most effective uses of technology in education. Video games, according to a 2014 study published in the

journal Learning, Media, and Technology, cause an increase in midbrain dopamine, which aids in the storage and recall of knowledge. Virtual field visits can be used to learn about prominent places and geographical concepts. Subject matter experts' pre-recorded video lectures can increase their exposure while also reducing the faculty's workload. Asking students to make and listen to their own podcasts can be a fun way to encourage creativity. Multimedia presentations have also been shown to be successful in catching the attention of pupils. The faculty can benefit from students' addiction to smart phones and tablets. Adaptive learning technology, which can adapt in real time to student interaction and modify the presentation of educational material based on the students' performance, can be a huge step forward in forward-thinking institutions. Sharing online class schedules can improve the effectiveness of the teaching-learning process by encouraging professors to organise their classes and ensuring that students are prepared. Geoboards and other virtual manipulatives may be incredibly versatile and interesting. Students' problem-solving skills and understanding skills can be improved by learning stations such as computer games, recording students' reactions to podcasts, and encouraging students to contribute notes. Making curriculum-aligned films, websites, and computer games easily available to students who complete their duties quickly can help to guarantee that class time is spent productively. Encouraging introverts to use the class's private hashtag on Twitter to ask questions, as well as employing web pages and interactive screenshots to produce comments and feedback, are both innovative uses of



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technology. Websites that are used to construct detailed and vivid mind maps as part of brainstorming can be used to reinforce ideas. Students can utilise blogging, one of the simplest methods to incorporate technology into the classroom, to demonstrate their natural aptitude and creativity. Students might be encouraged to use software to finish assignments such as online content design, music composition, and art creation. Students' preferences for activities can be gathered using applications like Google Forms, which can then be used to improve the lectures. Infusing technology into the classroom can also be utilised as a pedagogical method to ensure student success.

technologies that measure and display noise in the classroom can be used to To promote concentrated learning in a noisy classroom, turn down the volume.

Conclusion

Except for schooling, technological advancements have transformed every sphere. Technology's failure to transform the learning environment is due to our misconceptions about it and our aversion to it. It is a fallacy that problems such as platform incompatibility develop when new platforms are introduced. In fact, open source technologies that are stable, safe, interoperable with other platforms, cost-effective, and efficient can enjoy the benefits of embracing technology. Teachers must be convinced that technology can empower them while also allowing kids to study. They must be taught how to use technology and technology-assisted gadgets in the classroom. Both the

student and the teacher benefit from technology since the possibilities and opportunities they are exposed to are incomparable and unmeasurable. Educational systems must abandon ineffective technology in favour of ones that are low-cost, simple to use, and promote student learning. Only then can educational change be possible.

Though it is obvious that the pedagogical uses of technology and their implications are beneficial, the role of a teacher is indispensable, because while knowledge can be gained through the integration of technology, wisdom, discipline, values, and ethics, which are superior to all acquired knowledge, can only be instilled by a teacher. The compassion of a teacher and the warmth of emotional support are neither motivated by incentives or measured by parameters.

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