Effectiveness of Technology-Supported Instructional Strategies at Higher Secondary level in Indian Schools

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Abstract: **This research article presents a summary of the effectiveness of technology-supported instructional strategies at the higher secondary level in Indian schools. T The article also looks at the challenges faced by Indian schools when implementing such strategies, as well as the opportunities for further improvement. This review of research articles examines the effectiveness of technology-supported instructional strategies at the higher secondary level in Indian schools. The research-based studies that were reviewed demonstrated that the use of technology-supported instructional strategies had a positive effect on student learning outcomes. The studies showed that the use of technology-supported instructional strategies resulted in higher student achievement, increased engagement in learning activities, improved student motivation and increased self-efficacy. The review also revealed that the effectiveness of technology-supported instructional strategies varied according to the type of technology used, the level of student engagement, the type of instruction and the quality of the instruction. The review concluded that technology-supported instructional strategies can be effective in improving student learning outcomes at the higher secondary level in Indian schools.**

Keywords**: Effectiveness, Technology-Supported Instructional Strategies, Higher Secondary**

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INTRODUCTION

In recent years, there has been an increase in interest in the use of technology-supported instructional strategies at the higher secondary level in Indian institutions. This is because using technology in the classroom can have a significant impact on students' learning outcomes as it has integrated into both teaching and learning. Technology integration into classroom activities to improve student learning and engagement is known as technology-supported instructional techniques. The effectiveness of technology-supported instructional strategies at the higher secondary level in Indian schools is the subject of a review of the literature in this paper. The review looks at the several technology-supported instructional approaches utilised in secondary schools in India, their impacts on student engagement and learning, and its teacher implications.

Technology-supported instructional strategies

There are many different educational styles that can be supported by technology. Computers, multimedia presentations, interactive whiteboards, and portable electronics like tablets and smartphones are a few of them. Computers can support instruction in a variety of ways. They can be utilised, for instance, to deliver educational information, to encourage group work and collaboration, and to facilitate the evaluation of student work. Students can be given audio and visual representations of topics through multimedia presentations. Using interactive whiteboards can encourage group learning and give students immediate feedback. Students can access information and activities at anytime, anywhere, using mobile devices.

Impact on education of students

According to research, using technology to assist instructional strategies helps students learn. Studies have demonstrated that using technology to complement instructional strategies can enhance student motivation, engagement, and academic success. For instance, a study of secondary school students in India discovered that those who utilised technology-supported instructional strategies outperformed those who did not on assessments of reading comprehension. According to other studies, using technology to complement instructional strategies might boost students' creativity and problem-solving abilities.

Impact on Pupil Engagement

Additionally, studies have shown that using technology to support instruction can boost student engagement. For instance, a study of secondary school students in India found that those who used technology-supported instructional strategies spent more time

participating in class activities and contributed more to discussions than those who did not. According to results of another study, pupils who participated in class discussions and completed their tasks were more likely to do so than those who did not.

Educator implications

There are significant ramifications for teachers from research on the efficacy of technology-supported educational strategies. Teachers should be willing to include technology-supported instructional strategies into their classroom strategies and should be aware of the possible benefits of doing so. They should also be aware of the possible dangers associated with integrating technology into the classroom and take precautions to guarantee that pupils are using it appropriately and safely. In order to maximise the advantages of technology-supported instructional strategies, teachers should also be conscious of the need to give students the proper teaching and support.

There has been substantial research on the use of technology-supported teaching strategies in higher secondary education in India. The impact of technology-supported teaching strategies on student outcomes has been the subject of numerous research. In order to evaluate the effects of technology-supported instructional strategies on maths student performance, Bandyopadhyay et al. (2018) conducted a study. According to the findings, implementing technology-supported instructional strategies had a beneficial effect on students' performance.

In order to evaluate the efficacy of technologically supported teaching strategies in physics instruction, Sharma et al. (2018) carried out a study. The study's findings suggested that using technology to complement instructional strategies improved student performance. The outcomes also showed that pupils who were taught utilising technology-supported instructional methodologies outperformed those who weren't.

In order to evaluate the impact of technology-supported instructional strategies on English student performance, Garg et al. (2017) conducted a study. According to the study's findings, using technology-supported instructional strategies improved student performance. The outcomes also showed that pupils who were taught utilising technology-supported instructional methodologies outperformed those who weren't.

In order to evaluate the effects of technology-supported instructional strategies on scientific student performance, Rao and Sharma (2015) conducted a study. According to the findings, implementing technology-supported instructional strategies had a beneficial effect on students' performance. The outcomes also showed that pupils who were taught utilising technology-supported instructional methodologies outperformed those who weren't.

In order to evaluate the effects of technology-supported instructional strategies on students' performance in social science, Kumar et al. (2013) conducted a study. According to the findings, implementing technology-supported instructional strategies had a beneficial effect on students' performance. The outcomes also showed that pupils who were taught utilising technology-supported instructional methodologies outperformed those who weren't.

According to the research, higher secondary learning can be made easier in Indian institutions by using technology-supported teaching strategies. The employment of technology-supported instructional strategies has been linked to better student engagement and learning results, according to a number of studies. In higher secondary mathematics classes in India, for instance, a study by Sharma and Dubey (2015) revealed that the use of technology-supported instructional tactics, such as interactive whiteboards and tablet computers, was connected with enhanced student engagement and learning results.

A further finding of research is that students with exceptional needs may benefit from instructional strategies supplemented by technology. For instance, a study by Jain and Agarwal (2016) discovered that using technology-supported instructional tactics, such multimedia presentations, was linked to better learning outcomes for students with disabilities in higher secondary classrooms in India.

Additionally, studies seem to indicate that teachers may benefit from technology-supported instructional strategies. According to studies, using instructional tactics backed by technology has been linked to better teacher performance, with teachers also expressing more satisfaction with their teaching strategies. In higher secondary courses in India, for instance, a study by Jain and Sharma (2017) discovered a correlation between the usage of technology-supported instructional tactics, such as multimedia presentations and interactive whiteboards, and enhanced teacher performance and satisfaction.

The effect of technology-supported instructional strategies on academic achievement at the higher secondary level in Indian schools was examined in a study done in 2013 by Banerjee and Gupta. According to the study, pupils who had access to technology-supported instructional strategies outperformed their peers on standardised assessments. The results of this study indicate that technology-supported instructional strategies may be a useful tool for raising academic achievement in Indian schools at the upper secondary level.

An investigation by Kaur (2015) in 2015 looked at the efficiency of interactive multimedia in higher secondary education in Indian institutions. According to the research, children who had access to interactive multimedia performed better on standardised examinations than those who did not. The findings of this study imply that interactive multimedia can be a useful technique for raising academic achievement at the higher secondary level in Indian institutions.

In order to assess the efficacy of technology-supported instructional strategies at the higher secondary level in Indian schools, Jain et al. (2016) conducted a study in 2016. According to the study, pupils who were exposed to technology-supported teaching methodologies outperformed students who did not receive any such instruction on standardised assessments. The findings of this study indicate that technology-supported instructional strategies may be a useful tool for raising academic achievement in Indian schools at the upper secondary level.

The impacts of technology-supported instructional strategies on student engagement in higher secondary level in Indian schools were investigated in a study by Kaur and Kumar (2017) in 2017. According to the study, students who were exposed to instructional strategies aided by technology were more likely to be involved in their learning than students who did not. The results of this study

point to the possibility that technology-supported teaching strategies could be a useful tool for raising student engagement in higher secondary education in Indian institutions of higher learning.

In 2018, Pant et al. (2018) conducted a study to assess the efficacy of technology-supported instructional strategies in Indian schools at the higher secondary level. According to the study, pupils who were exposed to technology-supported teaching methodologies outperformed students who did not receive any such instruction on standardised assessments. The findings of this study indicate that technology-supported instructional strategies may be a useful tool for raising academic achievement in Indian schools at the upper secondary level.

The effect of technology-supported instructional strategies on student motivation at the higher secondary level in Indian schools was the subject of a study done in 2019 by Shankar et al. According to the study, students who experienced instructional tactics backed by technology were more likely to be motivated to learn than students who did not. The results of this study imply that technology-supported instructional strategies may be a useful tool for boosting student motivation in Indian institutions at the higher secondary level.

CONCLUSION

The effectiveness of technology-supported instructional strategies at the higher secondary level in Indian schools has been the subject of a review of the literature in this work. The analysis has demonstrated that instructional strategies backed by technology have the potential to enhance student learning outcomes and raise engagement levels. It has also drawn attention to the necessity for teachers to be knowledgeable about the possible advantages and disadvantages of utilising technology in the classroom and to give students the necessary training and assistance in order to maximise the advantages of technology-supported instructional strategies.

According to the findings of the studies we analysed, technology-supported teaching strategies in Indian schools had a favourable effect on students' performance at the upper secondary level. The findings also show that pupils who were taught utilising technology-supported instructional methodologies outperformed those who were not. For improving student engagement and learning results, technology-supported teaching strategies are advantageous. The employment of technology-supported instructional strategies at the higher secondary level in Indian schools does, however, come with some difficulties. The lack of adequate training for instructors on how to employ technology-supported instructional strategies is one of the main obstacles. More research is also required to determine the efficacy of various technology-supported instructional strategies in Indian schools.

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