Effectiveness Of Technology Enabled Learning For Higher Secondary Students

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Abstract: Technology ushers in fundamental structural changes that can be integral to achieving significant improvements in productivity. Used to support both teaching and learning, technology infuses classrooms with digital learning tools, such as computers and handheld devices; expands course offerings, experiences, and learning materials; supports learning 24, hours a day, seven days a week; builds 21st century skills; increases student engagement and motivation; and accelerates learning. Technology also has the power to transform teaching by ushering in a new model of connected teaching. This model links teachers to their students and to professional content, resources, and systems to help them improve their own instruction and personalize learning. The questionnaire was designed using a three-point scale. The data obtained were analyzed to obtain the mean score, standard deviation and 't' test. The results showed that the level of the application of TEAL in practical learning is high, the application of TEAL to assist in improving the higher secondary students. The hypothesis of the study showed there is a moderate relationship between the level of the application of TEAL and the understanding of students in technology-enabled learning. On the whole, TEAL should be implemented to help improve the students understanding.

Keywords: educational innovation, evaluation process, higher secondary students, motivation, technology enabled learning, teaching - learning process, and students improvement.

1 INTRODUCTION

The term, "technology" refers to advancements in the methods and tools we used to solve problems or achieve a goal. In the classroom, technology can encompass all kinds of tools from low-tech pencil, paper, and chalkboard, to the use of presentation software, or high-tech tablets, online collaboration and conferencing tools, and more. Technology in education and the right devices in students' hands helps to prepare them with the career and technical skills they need to be successful today and in tomorrow's workforce. Modern learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication, and leadership skills, and improving motivation and productivity. Finally, dramatic advances in educational technology have inspired powerful new ways for learners to engage with all kinds of content and activities in their own self-direct learning experiences. It is seen mainly as a support and complementing activity of face-to-face course deliveries, but does not yet change the pedagogical underpinnings of the learning practices. On the other hand, a thorough evaluation of students' attitudes towards technology-enabled learning is crucial for consistently planning course designs and for embedding a quality culture at course level Technology Enabled Learning (TEL), informative and engaging.

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2 REVIEW OF LITERATURE

Ruey S. Shieh (2012) study on, The findings reveal that the benefits that the participants gained from exposure to the innovative instruction appear in various aspects in addition to the students' test results. Having a higher interest in attending physics classes and being more actively participating in extracurricular science activities on the part of the students, and being more enthusiastic about and confident in helping students strengthen their physics concepts on the part of the teacher, are among the non-test score gains. The students' achievements and positive responses to the teacher's instruction seem to have motivated his dedication and confidence. It is also found that teachers' teaching beliefs and desire to change greatly affected their classroom practices and technology integration. To more effectively implement instructional innovations in a school, suggestions are provided. The review focuses on the four dimensions of the work system, i.e., environment, technology, course, and human-factor through which the teaching-learning occurs. The man-machine interactions demand both physical and cognitive demands and influence the ergonomic outcomes and performance outcomes. Raghunathan Rajesh (2013), related to information a study on, the review focuses on the four dimensions of the work system, i.e., environment, technology, course, and human-factor through which the teaching-learning occurs. The man-machine interactions demand both physical and cognitive demands and influence the ergonomic outcomes and performance outcomes. The review indicates that for effective learning, student's new learning patterns, evolving education technologies and methodologies need to be better understood by all stakeholders, i.e., students, teachers, administrators, and evaluators, technology, and communication providers. Matt Bower et.al (2013), conducted a study on, Information and Communication Technology (ICT) capabilities so that they could successfully integrate technology throughout their pre-service teacher education programme subjects and model the approaches they were aiming to foster in their students. The initiative involved appointing ICT Pedagogy Officers to work directly with academic staff, funded as part of the Australian Teaching Teachers for the

Future Project. Key findings include the sustained effort that is required in order to engender change, and the primary importance of relationship building in successful ICT education development. Morrison & Long (2011), Study on, TEAL is a new learning format that combines three elements: lectures, simulations and hands-on skills by the students. The approach used for the implementation of the real format is aimed at creating an effective learning system to improve students' understanding enhancing their creativity and informativeness from the context of the application of technological innovations to produce active learning. NurFarhaHassan (2015) study on, the results showed that the level of the application of TEAL in practical learning is high, the application of TEAL to assist in improving the understanding to enhance creativity and innovativeness is high, and the provision of laboratory facilities at the Five in helping to create a TEAL learning environment is high. Meanwhile, the hypothesis of the study showed there is a moderate relationship between the level of the application of TEAL and the understanding of students in enhancing their creativity and innovativeness. On the whole, TEAL should be implemented to help improve the students' understanding. To enhance the creativity and innovativeness of students, the study found that instructors and students must together apply TEAL optimally in teaching, and learning activities.

SIGNIFICANCE OF THE STUDY

Classroom Technologies help students & teachers in the process of receiving and giving education systematically. Technology helps in facilitating syllabus, acquisition of knowledge and skills. Educators & learners around the world can connect with each other on various Internet platforms. For such benefits, it's important to use technology in education. Technology in education enables children to adjust to their own pace of learning. Students who need extra time can spend more time going over exercises until they understand, whilst students who need less support can continue ahead. It also frees up the teacher to help kids who need more support on an individual level. Technology is inspiring kids to become creative and innovative. Creativity and innovation will make students successful in their career and life. Effective technology integration must have at the interdisciplinary level in a way that deepens and enhances the student's learning process. The benefits of implementing technology integration into the classroom are active engagement taking place, collaboration among peers, and connections to the real-world. An implementation of the technological tool in the students learning process is really important. Technology in education should be focused on the overall development of students. Computer and Internet in education not only help to learn the lessons effectively but also helps in decision-making and analytical process of data.

3 OBJECTIVES OF THE STUDY

- To study the level of Technology enabled learning for higher secondary school.
- To find the significance difference of technology enabled learning for the following variable locality gender types of school.
- To find out the significance difference between XI & XII students.
- To find out the significance difference of technology enabled learning variable educated and uneducated parents.

HYPOTHESES OF THE STUDY

There is no significant difference in the level of Technology-enabled learning XI & XII Standard students regarding Gender, locality of the school, higher secondary students and parents.

METHODOLOGY USED IN THIS STUDY

Population

Population of the study includes the students studying at various Higher Secondary Schools in Sivagangai District the academic year 2019

Sample

A stratified representative sample of 300 XI & XII Standard Students constituted from the schools in Sivagangai district with due importance given to variables namely Gender, locality, Higher secondary students.

4 METHOD

Survey Method

Tool

Technology enabled learning check list was prepared and validated by the investigator and guide.

Statistical treatment

Mean, Standard deviations, 't' test.

ANALYSIS AND INTERPRETATION

Table 1

DIFFERNCE BETWEEN XI & XII STANDARD STUDENTS IN THEIR TECHNOLOGY ENABLED LEARNING IN TERMS OF GENDER

Variable	Sub variable	N	Mean	SD	Calculated 't' Value	Remark At 0.05 Level
Gender	Male	146	16.04	5.784	1.133	NS
	Female	154	15.25	6.323		

It is inferred from the above table that there is no significant relationship between male & female XI & XII Standard Students in their Technology enabled learning in terms of gender.

Table 2

DIFFERENCE AMONG XI & XII STANDARD STUDENTS IN THEIR TECHNOLOGY ENABLED LEARNING IN TERMS OF LOCALITY OF SCHOOL

Variable	Sub Variable	N	Mean	SD	Calculated 't' Value	Significance At 0.05 Level

Locality of the school	Rural	190	49.27	9.134	2.542	S
	Urban	176	46.91	8.62		

It is inferred from the above table that there is significant difference between higher secondary rural and urban students. While comparing the mean scores of higher secondary rural (mean=49.27) are better than urban (mean = 46.91) in their locality of the school.

Table 3

DIFFERENCE AMONG XI & XII STANDARD STUDENTS IN THEIR TECHNOLOGY ENABLED LEARNING IN TERMS OF HIGHER SECONDARY STUDENTS

Variable	Sub Variable	N	Mean	SD	Calculated 't' Value	Significance At 0.05% Level
Higher secondary Students	XI	151	58.91	15.751	2.170	S
	XII	149	62.90	16.066		

It is inferred from the above table that there is significant difference between higher secondary XI&XII. While comparing the mean scores of higher secondary XII (mean=62.90) are better than XI (mean =58.91) in their Higher secondary school.

Table 4

DIFFERENCE BETWEEN THEIR TECHNOLOGY ENABLED LEARNING IN TERMS OF PARENTS

Variable	Sub variable	N	Mean	SD	Calculated 't' Value	Remark at0.05 Level
Parents	Educated	175	74.23	5.34	12.31	S
	Uneducated	125	89.23	12.85		

It is inferred from the above table that there is significant difference between higher educated and uneducated. While comparing the mean scores of uneducated parents (mean=89.23) are better than educated parents (mean=74.23) in their technology enabled learning.

FINDINGS

- There is no significant difference between male and female higher secondary school students in their technologies enabled learning.
- There is significant difference between higher secondary school students in their technologies enabled learning.
- There is significant difference between XI&XII higher secondary school students in their technologies enabled learning.
- There is significant difference between educated and uneducated parents in their technologies enabled learning.

5 CONCLUSION

Technology has helped in the growth of mobile learning and long distance learning. The use of internet technology has enabled teachers to reach students across borders and also students from developing countries have used internet technology to subscribe for advanced educational courses. This new educational technology is supporting both teaching and learning processes, technology has digitized classrooms through digital learning tools like, computers, iPads, smart phones, smart digital white boards; it has expanded course offerings, it has increased student's engagement and motivation towards learning. There are also numerous on-line resources about using technology to enhance teaching in a number of different ways. For example, Teaching with Technology 2, from the Learning Technology Consortium, offers 17 peer-reviewed essays on using different kinds of educational technology, and the book can be downloaded for free. MERLOT is a huge, peer-reviewed, multi-disciplinary resource for learning and online teaching. Here's ac curate list, from about me to Zoster, of free online tools that you can use in your teaching.

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