Technology is having positive effects on how students learn research paper

Technology is very important to education. Technology is not only related to computers, but it involves all the tools, equipment, techniques, resources and methods that are used to pass on instruction and learning. Technology includes the methods of planning, teaching and learning and therefore educators should select the necessary gadgets that can support and enhance those goals that are set. Educational Technology places the importance on communication skills and methods to learning and teaching through the practical use and the blending of different media. Technology enhanced learning (TEL) is a technology that is integrated into the classroom for the purpose of supplementing the learning process. However, researchers who have studied its implementation and use says that although school administrators and teachers have looked forward to using technology in the classroom to enhance student learning, this move has produced disappointing results.

The introduction of computers has been widely publicized with promises of committed teachers, and yet when the program fails there is no explanation given for its failure, only inventive excuses. In an article put forward by wheeler (2012) he quoted from a study done by Venezky that " the history of technology in the classroom is one of overstated promises." Problems implementing TEL programs have risen due to lack of understanding of the most effective approaches of selecting what technologies to use, the most effective ways to integrate technology, and the lack of understanding of what factors may impact the effectiveness of the program. Bordbar, (2010) in " Communication Without Barriers" says that at the inception of the technology integration process, a common problem is that classroom

teachers often rely on technology to teach students, rather than using the technology as an educational tool, or the technology is used in situations that do not warrant its use. When integrating technology into the curriculum, it is crucial that the different tasks be assessed and that they can be completed without the use of various technologies, and that overuse of technological tools can result in losing other valuable teaching and learning skills that could be used without the aid of these gadgets.

The perceived reason for the failure of technology is that there is the concentration on just the tool that will be used and not the method that will be used to make the particular hardware or software to work effectively. In a survey conducted by the National assessment of educational Progress, it was found that middle school math students use computers largely for basic drills and practice than to develop refined skills. The report also found that no state was collecting data that would help them to ascertain whether the investment they have made in providing the necessary technology was helping to improve student achievement.

The question of whether the investment of technological gadgets in schools is worth it is now being asked. An analysis of the NAEP study found that 34 percent of the eight graders who took the math exam in 2011 used the computer to drill on math facts while less than a quarter of these students use spreadsheets or geometric figures on the computer. Overall, the data from the survey showed that the use of technology had not advanced much since the 1980's. In fact, 73 percent of students say that they regularly use the computer to watch movie or video in class. Such data suggest that the technology does not seem to change dramatically the nature of schooling.

Experts who study the effectiveness of instructional technology say that it is possible for some digital programs to improve teaching. A study conducted by Pane, a mathematics curriculum developer, he found that high school students who use an algebra program created by Carnegie Learning, and supported by teacher-led curriculum, showed gains in their state-standardized math tests. Whether those improvements came from the introduction and use of technology or modifications in the curriculum, he said, was hard to say. But Steve Ritter, chief scientist at Carnegie Learning, said one of the benefits of the technology was that it used the principles of cognitive science to help students in their advancement and their grasping of concepts rather than the simple drilling of math problems.

In presenting to a class it is important to have the necessary skills. Preparation is necessary so that the desired outcomes are met and that the teacher is able to hold the students' interest right throughout the lesson. In a New York Times article by Matt Richtel (2011), Classroom of Future, Stagnant Scores - it was found that the introduction of technology has helped individual classrooms, schools or districts. For instance, a survey carried out in an 8 grade class, it was noted that the student's writing scores improved after they were given laptops. The reason given for this improvement was that their teachers were trained to use the laptops to teach. Again, many researchers are unable to make the link between teacher training and the use of the laptop in successfully improving student performance. Educators would like to see a clear difference in technology's effect on learning but find it difficult as each school has its unique characteristics and technology changes rapidly. All this makes it hard to measure its effectiveness.

However, critics have disputed the absence of clear proof that schools are placing too much belief in technology and emphasizing on digital skills – like using power point and multimedia tools. They claim that those who advocate for technology have it all wrong when they push for equipping schools with technology without first assessing its effectiveness. Now they must face the tough choice of financing their other programs that were neglected because of this lack of insight. At the same time though, schools use of technology has earned its widespread praise. Schools have banked its future and reputation on technology. One educational regulation board uses its computer-centric classes to attract children, increasing enrollment as its local student population shrinks.

The pressure to push technology into the classroom without proof of its value, when in 1997, at a science and technology committee assembly, President Clinton called for the need for the equipping of schools with technology. To support his urgent call, the committee report documented the success of schools that were equipped with computers. In fact, drop-out rates fell, and test scores rise. They conceded to the almost dismal failure of technology but still call on schools to continue with its implementation. The report's final statement said that the Education Board is calling for the continuation of the introduction of technology within America's schools until studies into its effectiveness have been completed.

There are laptops, interactive whiteboards and software that instruct students on basic subject areas. The major aim is to transform the classroom and to get students to learn at their own pace, using computer gadgets with the teacher acting as a guide instead of a lecturer. One teacher says that he

was pleased with his modern classroom, and that he is looking forward for it to work. Some school districts have already invested over 33 million dollars on technological gadgets.

If the use of technology in school is to be successful, teachers must first research their content and present it effectively using media. When the lesson is being prepared, the teacher should ensure that the media to be used in the enhancement and delivery of the lesson is correct and also that it is available. Karen Cator, director of the office of educational technology in the United States Department of Education said that the value of technology could not adequately be measured by standardized test scores. She said that there was need for better measurement tools. She suggested that in the schools where technology was introduced and test scores remained the same, other areas could be looked at in order for improvement to take place. She observed that students were doing great things with a computer like using it for research, organizing their work and learning to work together. Kyrene schools have become models for others. They have encouraged other teachers to use technology to get on with the business of educating its children.

Researchers have conducted studies in which technology was used to support or replace existing teaching practices, and there was limited evidence to confirm any enhancements to the current situation. Beetham (2007) and Conole et al., (2008) carried out a study in which they found that although there are not many examples of innovative uses of technology in learning and teaching it is not clear whether these enhance student learning. The over-emphasis on technological outcomes has led to the omission of

pedagogical considerations. The study which was done previously, on the adoption of online learning environments in UK FE and HE institutions established that " pedagogical issues appear to have been of minor concern until now"

Technology use is more than just putting students in a room in front of computers. Consideration should be taken regarding who will use the equipment, at what point in the lesson it will be introduced and how it will be introduced. Also, how will the students be guided into using these gadgets? If this is not done the desired outcome will not be achieved. Rey Junco (2010) in his article ' Using Emerging Technologies to Engage Student and Enhance Their Success' says that he is willing to experiment with new ways of using technology and social media in educationally relevant ways. He will focus his research on using emerging technologies to help engage students and enhance their success in higher education. Students must use technology that is meaningful to them in order to enhance their success. He will look at the major issues that impact the use of technology in educationally relevant ways. First, students will be engaged in the advising process, and he hopes that this engagement will continue and students will continue to think about their academics even when teachers and parents are not around to supervise the use of these technological gadgets.

Quality advising is important to student success. Institutions have been finding it difficult to provide quality advising to all students. He speaks of the desire to meet students ' where they are.' Junco says he hopes too that educators will continue to engage students in their online spaces. One noticeable barrier to student achievement has been the lack of advice being

offered. Donley (2012) in ' The Tech Issue' argues that the technology can enhance literacy development, impact learning acquisition, provide greater access to information, support learning and boost students' self-esteem. Computer technology provides many opportunities for students to build their personal knowledge through the rich experiences that computer offers. Technology can have a positive effect on education as it can prepare students with skills that will be necessary for the future. There are unfounded fears that this will replace certain relevant and necessary instruction strategies. Students will gain a complete education that will prepare them for the world of work. Some researchers believe that the education that students will receive will equip them for the direction in which our society is presently moving. However, there are some barriers in achieving the resources, the funding and training needed to streamline technology into every classroom.

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