

Integrating Technology In 21st Century Classrooms: Pathways Towards Harmony Through Education

^[1]Naqsheema Shireen Ali, ^[2]Sofia Shireen N.K Ali,

^[3]Dr (Mrs.) Flosy C. R. D'Souza

[1] Masters in Computer Application (Fiji) University of Mysore

[2] Ph.D. Research Scholar, (Fiji), Mangalore University

[3] Associate Professor and Research Guide St. Ann's College of Education, (Autonomous) Mangalore India.

Corresponding Author: Naqsheema Shireen Ali

Abstract: Technology is identical to the 21st-century universal setting and is placing impact on people from all paces of life, with students, children being no exception to it. Technology has turned into an essential part of our lives and learning patterns. Every day many students are spending endless hours occupied in popular techniques, which at first glimpse seems like no proper management and waste of time and appears like and damage to brain cells, but these educational technologies deserve an instant and more magnificent look of what indeed is going on. The occurrence of these technologies and the progress can help shape the new ways of the education system and thus promote and develop a sense of harmony through this new education system and produce citizens who would be able to fit themselves in this current world.

Thus to confirm harmony through education, ICT can become a standard tool that will enable students to work independently by increasing their curiosity and building unity in the classrooms. A review of the literature indicates that integrating technology in classrooms provides children with an instructional, self-directed, and student-centered opportunity. Technology integration aids the developing of 21st-century skills such as problem-solving skills, thinking, critical thinking skills, communication skills, leadership skills, collaboration and teamwork, creativity and innovation, information, and interpersonal skills adequately training them to meet the stimulating demands of the continuously evolving global situations. The present paper attempts to provide a comprehensive overview of the integration of technology into the classrooms to develop a sense of harmony through this new technology-enabled education system and with specific suggestions and recommendations to moderate their effect.

Keywords: Critical Thinking skills, Harmony Technology, Integration, Education, Curriculum.

Date of Submission: 02-12-2019

Date of acceptance: 18-12-2019

I. Introduction

Education systems around the world are under increasing pressure to use the new ICT technologies to teach students the knowledge and skills they need in the 21st century. It should accept that teachers are vital players in any initiative aimed at improving teaching and learning processes. It's known that teachers don't have time to evaluate the educational strengths and weaknesses of the portion of the existing curriculum materials before they use it in the classroom.

In the new phase of the knowledge revolution, the source of knowledge has shifted from one source to a different source. In other words, we can say that there is a decentralization of the knowledge source.

There is a need to facilitate training on ICTs for teachers both at the pre-service level and in-service level. ICT comprises a complex and heterogeneous set of proper applications and services used to produce, process, distribute, and transform information.

Information and communication technologies (ICTs) are a significant factor in shaping the new global economy and producing rapid changes in society. They have produced significant transformations in industry, agriculture, medicine, business, engineering, and other fields. They also have the potential to transform the nature of education—where and how learning takes place and the roles of students and teachers in the learning process. Its clear ICT can be powerful tools to help learners access knowledge resources, collaborate with others, consult with experts, share knowledge, and solve complex problems using cognitive tools.

Benefits of using Technologies in the Classroom

❖ Improves Engagement

When technology is integrated into lessons, students are expected to be more interested in the subjects they are studying. Technology provides different opportunities to make learning more fun and enjoyable in terms of teaching the same things in new ways. For instance, delivering teaching through gamification, taking students on virtual field trips, and using other online learning resources. What is more, technology can encourage more active participation in the learning process, which can be hard to achieve through a traditional lecture environment.

❖ Improves Knowledge Retention

Students who are engaged and interested in things they are studying are expected to have better knowledge retention. As mentioned before, technology can help to encourage active participation in the classroom, which also is an essential factor for increased knowledge retention. Different forms of technology can be used to experiment with and decide what works best for students in terms of retaining their knowledge.

❖ Encourages Individual Learning

No one learns in the same way because of different learning styles and different abilities. Technology provides excellent opportunities for making learning more useful for everyone with different needs. For example, students can learn at their level of speed, review difficult concepts, or skip ahead if they need to. What is more, technology can provide more opportunities for struggling or disabled students. Access to the Internet gives students access to a broad range of resources to research different ways, which in turn can increase the engagement.

❖ Encourages Collaboration

According to Edwards(2000),Students can practice collaboration skills by getting involved in different online activities. For instance, working on various projects by collaborating with others on forums or by sharing documents on their virtual learning environments. Technology can encourage collaboration with students in the same classroom, same school, and even with other classes around the world.

❖ Students Can Learn Useful Life Skills Through Technology

By using technology in the classroom, both teachers and students can develop skills essential for the 21st century. Students can gain the skills they will need to be successful in the future. New learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication and leadership skills, and improving motivation and productivity. Technology can help develop many practical skills, including creating presentations, learning to differentiate reliable from unreliable sources on the Internet, maintaining proper online etiquette, and writing emails. These are essential skills that can develop the classroom.

❖ Use Of Real-World Issues.

This model encourages the use of real-world problems in the classroom. By using the Internet, students can research real issues happening at that moment that is related to the classroom curriculum. This helps students understand that the lesson being taught refers to practical problems and real people.

❖ Simulation And Modeling.

Simulation software helps to bring to the classroom real activities that would be impossible to see without technology. By using specific simulation tools, students can see planetary movements, how a tornado develops, or how dinosaurs lived. Modeling software offers similar features. Instead of the static models used in previous decades, these tools allow students to see the dynamic characteristics of models.

What are the Benefits For the Teachers?

It is essential to recognize that students are already interested and engaged in using technology; this creates many fantastic openings for schools and teachers to benefit from integrating some forms of technology in the classroom and to make teaching and to learn more real. Here are some of the main benefits of using technology in the classroom. With extensive online resources, technology can help developed education. Teachers can use different apps or reliable online resources to improve the traditional ways of teaching and to keep students more involved.

Virtual lesson plans, grading software, and online assessments can help teachers save a lot of time. This valued time could be an advantage for working with students who are struggling. What is more, having virtual learning environments in schools enhances collaboration and knowledge sharing between teachers. Improves

engagement. When technology is integrated into lessons, students are expected to be more interested in the subjects they are studying.

Moreover, Technology provides different opportunities to make learning more fun and enjoyable in terms of teaching the same things in new ways and for instance, delivering teaching through gamification, taking students on virtual field trips, and using other online learning resources. What is more, technology can encourage more active participation in the learning process which can be hard to achieve through a traditional Increased Student Engagement

In many threaded online classrooms, a student posts their idea on a subject, and every other student must respond to it, building upon the original post. The nature of such a forum allows the students to take the time to think and consider and create more thoughtful responses. It also ensures that every student participates in the discussion, something that can be difficult to achieve in a traditional physical classroom. The delayed response timeline is often helpful to ESL learners, giving them the chance to focus on the material and contribute without worries about pronunciation or accents

Classic heavy, bulky textbooks have a couple of flaws -- one of which is the high cost of an upgrade. Because of that expense, books were replaced infrequently, and information became outdated instead of keeping up with changes in the field of study. The digitalization of learning materials means incorrect or antiquated information can be quickly adapted to reflect new standards and new information.

Getting Parents Involved In Education

In many traditional classroom formats, teachers find it challenging to foster parent engagement. Parent experience is often detached from classroom happenings. Students aren't always adept at communicating their learning experiences to their parents—typically, that desire for openness doesn't come naturally to teenaged students. Also, parents who are busy with work or have conflicting schedules are frequently unable to physically observe what their child is learning or working on.

The advent of online-based learning opens up the classroom environment to parents—they can go to a website to see what their child is learning, or even work through problems with the child. It's easier than ever to contact teachers via online platforms, which mend the seams in mismatched teacher-parent schedules.

Education Tech and the Bigger Picture

Outside of school, the ability to utilize technology effectively and creatively is a critical component of most careers and fields of study. By providing students with a great base of knowledge and experience, online-based education gives kids the tools they need to be productive, successful members of society. Tech-based education broadens horizons for students—both in their academic achievement and their long-term career success. Lecture environment.Smart (2016) acknowledges the ideas of Pearson,who provided eight insights that specify how digital tools can improve parent engagement:

1. Improve Your Classroom communication Tools

Emails, Websites, e-newsletters, specialized apps, and other digital media let parents see the work their students do in class. These tools help cover learning beyond the classroom and give parents enhancement tips and conceptsfor the learning activities that can be done away from school.

2. Take care of the Routine Matters

Technology allows teachers and parents to communicate more easily about day-to-day school events, such as back-to-school nights, fundraisers and parties, get-togethers, events. Applications such as “Remind” are high for this, and parents will appreciate being more connected.

3. Parents can be brought in Through Video Conferencing.

Skype, Google Hangout, and FaceTime, chats let parents participate in class activities while being in anisolatedand remote location. With many parents working, on travel away from home, or with other children at home, it's often difficult to come to the school; thus, in these cases, videoconference tools become very handy.

4. Social Media can be used wisely

Working parents sometimes feel left out if they are not able to join freely.With email chains and digital newsletters, and Facebook groups, they get informedin a better way and offer extra help and expertise during the time that is more convenient to them

5. Use text Messages to build secure communication

Technology can also remove common obstructions between schools and families. A lot of young parents become disconcerted by formal conferences or can't get time off work to attend. Many teachers have

found that the ability to text parents made communicating with them more comfortable. Frequent and straightforward texts to parents to explain students' progress can be far more potent than an old-style of marks card or progress reports.

6. Allow Parents Help Design Your Communication Strategies

During the first week of school, only some teachers try to engage with parents through email and online assessments to figure out the most excellent technique to communicate and advise on how the parents can get involved in the student's learning at home and in school.

7. Use data to show students advancement

Parents are always eager to identify what's going on in the classroom. "Teachers can use data tools to show parents where and how their students excel and the areas they need to improve in. Using the modern data tools, teachers can get this information to parents in a much faster way, as conflicting to waiting till the end of the term when its called "it is too late!"

8. Make Information Easy to access with Cloud

Digital portfolios build a place for teachers and students to save and store their work in the cloud. For example, "students can create and develop digital portfolios to access all of their college inclination work, resumes, informational interviews, essays for college and applications biodata, etc. Since the information exists in the cloud, students can access any place, any time.

II. Conclusion

To function in the new world economy, students and their teachers have to learn to navigate vast amounts of information, to analyze and make decisions, and to master new knowledge and to accomplish complex tasks collaboratively. The use of ICT is playing a vital role in the field of teacher education in so many ways. It is providing immense help and assistance to all connected with tasks of teacher education like teacher educators, students, guidance and counseling personnel, educational planners, and research workers for performing their responsibilities as adequately as possible. There are a variety of approaches towards the professional development of teachers in the context of uses of ICTs in education. According to Smart (2016) "as more millennials become parents, they will expect school districts to use technology to communicate with them and their students.

While communities need to adjust, it's not an impossible challenge because several techniques are already in use. Professional development to incorporate ICT into teaching and learning is an ongoing process. Teachers need to update their knowledge and skills as the school curriculum and technologies change. They can be done using some following considerations like - Context and Culture identifies the culture and other contextual factors that must be well-thought-out in infusing technology into the teacher education curriculum.

Accordingly, leadership and Vision are vital for the successful planning and implementation of technology into teacher education and require both guidance and upkeep from the administration of the teacher education institution. Lifelong learning acknowledges that learning does not stop after school.

Planning and Managing Change is the concluding theme, born of today's context, and accelerated technology itself. It signifies the importance of careful planning and effective management of the change process. These guidelines can help the teacher educator and teacher education institutions and maximize the awareness, competence, and participation in the area of ICT.

References

- [1]. Cornu, B. (1997). Teachers and teacher education facing information and communication technologies. *Information Technology IFIP Advances in Information and Communication Technology*, 319–326. DOI: 10.1007/978-0-387-35081-3_40.
- [2]. Edwards, M. E., Cordray, S., & Dorbolo, J. (2000). Unintended Benefits of Distance-Education Technology for Traditional Classroom Teaching. *Teaching Sociology*, 28(4), 386. DOI: 10.2307/1318588.
- [3]. Flipping Benefits Teachers Too. (n.d.). *Time for Learning: Top 10 Reasons Why Flipping the Classroom Can Change Education*, 69–84. DOI: 10.4135/9781483332772.n6.
- [4]. From Personal Pedagogy to the Broader Teacher Education Context. (2008). *Powerful Pedagogy*, 169–180. DOI: 10.1007/978-1-4020-8196-5_10.
- [5]. Mayer, D. (2002). An Electronic Lifeline: Information and communication technologies in a teacher education internship. *Asia-Pacific Journal of Teacher Education*, 30(2), 181–195. DOI: 10.1080/13598660220135685.
- [6]. Farace, J. (2006). Getting Started with Digital Imaging. DOI: 10.4324/9780080467214.
- [7]. Mervyn, F. (2010). How can ICT Help us to Improve Education? (n.d.). Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/13558000210161061>.
- [8]. New Ways to Promoting the use of ICT in Teacher Education Institutions. (n.d.). Retrieved from <https://www.scribd.com/document/125651830/New-Ways-to-Promoting-the-use-of-ICT-in-Teacher-Education-Institutions>.
- [9]. Power, T. (n.d.). ICT and teacher education in the global south: costing the benefits of learning. Retrieved from https://www.academia.edu/17458377/ICT_and_teacher_education_in_the_global_south_costing_the_benefits_of_learning.

- [10]. 김남진& Kang, Y. (2007). The Effect Comparison of Teacher-Efficacy and Ability of ICT Use for ICT Utilization Education in Special Education Teacher. *Korean Journal of Physical, Multiple, & Health Disabilities*, 49(null), 315–331. DOI: 10.20971/kcpmd.2007.49.315.
- [11]. Smart, G. (2016). Twelve ways digital tools power parent engagement. Retrieved from <https://www.pearsoned.com/digital-tools-power-parent-engagement/>.
- [12]. Traditional and Non-Traditional Tools for Digital Methods. (2006). *Getting Started with Digital Imaging*, 141–163. DOI: 10.4324/9780080467214-8.

Naqsheema Shireen Ali "Integrating Technology In 21st Century Classrooms: Pathways Towards Harmony Through Education" *IOSR Journal of Research & Method in Education (IOSR-JRME)* , vol. 9, no. 6, 2019, pp. 64-68.