Technology Integration and Instructional Technology: A Reflection

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With technology, one can anticipate increased efficiency and effectiveness on both the part of teachers and learners. Technology can also prompt instructional change and deal with issues that affect teaching, learning, and educational institutions. Technology can then be seen as both a tool and a mechanism for change. Learners should embrace technology for them to benefit and teachers should be open to introducing technology into the classroom to progress and introduce something new to their teaching practice. As mentioned in the study of Ghavifekr and Rosdy (2015) that the integration of ICT has great effectiveness for both teachers and students.

The use of computers in the classroom is prevalent today. Computers have transformed the teaching field in several ways. Educators utilize computers to record grades, manage attendance, make reports, create graphical presentations and get learners’ performance in assessments and online activities. Computers have a significant role in all levels of education. Basic and higher education programs are more accessible to students. This helps students also to become more engaged as learners of today are regularly exposed to technology outside the school. Students in some countries began using computers at a young age. Students who are moderate users of computers during school years tend to perform better than those who rarely use computers (Luxton, 2016). Similarly, this will also give an opportunity to teachers to teach appropriate digital citizenship skills.

As of the moment, digital content makes changes in the landscape of different educational institutions. Several educational technologies which facilitated changes are emerging including virtual reality, gamification, and other individualized and group learning opportunities. In the near future, more technologies and technology-enabled practices will be coming in. In addition, several educational set-ups were adapted which utilize different kinds of technolo-
gies. These set-ups have the purpose of catering to the needs of distance education, some of which are online or virtual, blended, presence, modular, and homeschooling.

Virtual learning is a learning experience that uses computer software, the Internet, or both to deliver instruction to students. As stated by Nguyen (2015), the Internet has made online learning possible, and many researchers and educators are interested in online learning to enhance and improve student learning outcomes while combating the reduction of resources, particularly in higher education. Thus, much more of today that online learning serves as a mechanism for every teacher and student to widen knowledge even we are physically separated. Presence learning, on the other hand, comprises both the learners and the educator sharing the same physical classroom. This kind of setup helps learners become more engaged and are developed cognitive and socio-emotional. Other benefits were mentioned in the study of Ali (2020) and Evans, et.al (2020). Meanwhile, blended learning is an educational setup that integrates technology and digital media with the usual teacher-led classroom activities, giving them more flexibility to customize their learning practices. It is an effective way of teaching that is flexible and easy to access. Additionally, it can boost students’ motivation and their achievement of the course or subject (Muxtorjonovna, 2020). On the other side, homeschooling is a set-up where students’ education is based at home with their parent’s guidance. This is quite an advantage since we are in the middle of the pandemic. It is more flexible and personalized; however, several challenges might occur in terms of balancing home, work, and childcare on the part of parents and even the availability of technology. But the study of Johnson (2021) mentioned that both parents enjoyed working with their children, and found it rewarding when their children thrived. Lastly, modular distance learning is a common approach today in public schools which utilizes self-learning modules based on the most essential learning competencies in a form of print or digital format. It is important to note checking the quality of the content of these self-learning modules as it will most likely determine the effectiveness of the said material based on the study of Natividad (2021).

Today, there is a need for technology integration since there are an extremely great number of benefits of doing that. Technology is a typical part of teachers and students. Most schools have connected computers or Internet-enabled devices. The technology we are using right now carries the tools of empowerment into the hands and minds of those who use them. Technology also changes radically the way we think and work. Several studies (Rathore and Sonawat, 2015; D’Angelo, 2018; Martin, et.al, 2010) mentioned that technology integration in the curriculum improves students’ learning processes and outcomes. There are important tools to be used in education like Calculator Emulator, Smart Phones, SmartBoard, and Digital Sketchpad. These tools can engage students in their learning which helps them to become creators and reviewers instead of just users. The integration of these technologies can support...
the necessity of students to have 21st-century skills as pointed out in the pilot study of Silvernail, et.al (2008). These technologies will help make learning and teaching more fun and meaningful.

On the other side, despite the necessity of integrating technology in the curriculum, there are still barriers to technology integration for teaching and learning. The barriers are the result of the implementation factors like resources, access, expertise, and time. However, as educators, we can look at these barriers as challenges to overcome. One of the keys to successful technology integration is considering the standards and related learning goals. As suggested by Boss (2008), we have to innovate with the tools we already have and learn with our students.
References


