

The Role of Technology in the Educational Process

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Although technology is finally being integrated into education, its use for teaching and learning still remains a challenge. Despite the fact that many schools today are privileged to have ready access to technology, trained teachers, and a favourable policy environment, the use of technology in the classroom is still low. Some attribute low levels of technology use in education to the [pedagogical beliefs](#) of teachers.

With that said, the potential of technology to enhance learning cannot be overemphasized. The use of technology is something that started a long time ago for students with special needs. For example, brail machines have been utilized for the visually impaired. In addition, special needs programs that [help children with autism](#) use technology to enhance learning. By integrating technology into education, educators aim to engender pedagogical change and address fundamental issues that affect learners with special needs. Technology can therefore be seen as both a tool and a catalyst for change.

Today, technologies used to improve and facilitate learning can be found everywhere. Leaving other contextual factors to the side – such as [unequal access](#) to technological innovations and connected technologies across schools and districts – we can only say that we have embraced technology in education when it is used for both teaching and learning. With the incorporation of technology into schools, the main purpose is to change how teachers and students gather, access, analyse,

present and transmit information. This can **democratize information** in classrooms as well as help differentiate instruction, particularly for students with special needs.

Assistive technology for students with special needs

Assistive technology can be defined as an item, piece of equipment or product system that can be used to maintain, increase or improve functional capabilities for any person with a special need. Thus, the incorporation of educational technology can also provide benefits to students with disabilities who may be in a better position to interact with the lesson through technology. Moreover, technology can place teachers in a better position to customize learning for students with special needs.

What is the relationship between technology in education and pedagogy?

Research has **illustrated** that many educators have had a hard time integrating technology into education. This may be because many educators have yet to explore the relationship between technology and pedagogy. Doing so could play a huge part in encouraging critical thinking by teachers as they attempt to integrate technology into education.

At the same time, for technology to work effectively, it should only be incorporated in classroom if it is appropriate for a given instructional task. Also, technology can only be an effective teaching tool if teachers participate in decisions to adopt technology. This is because teachers have the responsibility of facilitating instruction and incorporating technology at the classroom level, yet many school administrators tend to make decisions related to technology adoption/training without consulting teachers.

How Technology can be used to Improve Learning

The following are ways that technology could be better leveraged to improve learning:

- With the widespread availability of student databases that are able to track individual progress, teachers are encouraged to identify learning objectives and differentiate instruction based on the needs of their students.
- Whenever teachers attempt to present instruction using technology, they should do so using a channel that is relevant to the objectives, the learning style, mode and the technology selected.
- When evaluating technology-based instruction, there needs to be appropriate evaluation techniques that are in line with the methods of instruction, objectives and the technology.
- Teachers can design follow-up activities when using technology to evaluate students' learning and the role technology played in that process.

Overall, technology is central to many sectors of society and its integration into the education process has great promise for student learning. With technology, one can expect **increased efficiency and effectiveness** on both the part of teachers and students. Technology can also prompt pedagogical change and address issues that affect learning, teaching and social organization. Technology can therefore be seen as both a tool and a catalyst for change. Students should embrace technology for them to benefit and teachers should be open to introducing technology into the classroom to improve and innovate their teaching practice.

**This week's guest blogger is Joyce Waddell. Joyce studied social work at Azusa Pacific University. She is interested in adaptive learning technologies and its impact on higher education. She has been a social media specialist and freelance blogger since 2014.*