

Why we need technology in schools essay

[Technology](#), [Internet](#)



It's ironic how for more than a century, " the United States led the world in equipping its young people with the education they would need to succeed" (Harvard Graduate School of Education, 2011, p. 1), and yet, by the end of the 21st century's first decade, signs show that the US is failing to provide for the education of its youth. The US is now lagging behind other nations in terms of educational attainment and achievement.

When compared with other wealthy countries, the United States falls behind when it comes to the rate of high-level literacy (Holland, 2006). It was found that in a study of the 14 wealthy countries, only one in five American adults had a high level of literacy, the 4th lowest in the group (Holland). Similarly, another study of 15-year olds indicated that the United States ranked 12th among the 17 advanced countries when it came to high-level reading skills (Holland). In yet another study reported by the World Economic Forum (McKendrick, 2011), the US came in 5th in a ranking of the technology savviness of nations where the ranking was based on the adoption and readiness of technologies by businesses, people, and governments.

While there are many debatable reasons that attempt to explain why American students are falling behind their international counterparts, it is clear that the United States is not investing as much as the other countries in children's education. Among the 30 countries in the Organization for Economic Cooperation and Development, " only Norway spent more per student on primary education than the United States did" (Holland, p. 46). However, this refers to the nationwide average, and it should be noted that the quality of education in the different school districts, as well as in public versus private schools in the US, is inconsistent. A wide technological gap

pervades among the students of different economic strata, and this digital divide is widening even more. Although some well-financed educational institutions are equipped with wireless computers and have educators who are trained to use the new technologies, poorer rural and urban schools are falling behind with insufficient Internet access and outdated computers.

Aside from the digital divide that's caused by differences in economic status and the fact that public schools are funded in a different way, scholars observed (Holland) that children in affluent districts spend more time developing critical thinking and higher cognitive skills whereas children from poorer areas are being taught more about how to behave in a work environment and are spending more time doing rote learning.

Aside from the economic reasons pointed out, another challenge that the American educational system faces with regards to technology use is the constant and rapid change of technology (Education Week, 2011). While the advancements in technology allow for easier and increased access to multimedia content and increased use of online courses, they also make it harder for schools to catch up. This is with the consideration that schools would have to upgrade their technological infrastructure every time a new technology emerges, and they would also need to keep developing new professional development programs. In addition, these rapid advancements in technology make it hard for educators to gauge the technology's effectiveness in the learning environment before the technology gets implemented.

However, studies have shown that the use of technology in education does have a lot of benefits. For example, a study conducted by the US Dept. of

Education showed that “ students in online-only instruction performed modestly better than their face-to-face counterparts” (Education Week, 2011). Similarly, the study showed that students in classes where face-to-face instruction was combined with online elements did better than students who attended classes that consisted only of face-to-face instruction. It should be noted, however, that these results are from a study of students in post-secondary education as there is currently a lack of extensive research on virtual learning in K-12 schools (Education Week, 2011).

Project Tomorrow conducted a study, which showed that there is a growing interest in mobile learning (Education Week, 2011) among educators, together with “ an increase in the number of students who own mobile devices such as smartphones” (Education Week, 2011) regardless of demographic or economic differences. In addition, the study showed a growing interest in electronic textbooks, online learning, and combined learning opportunities.

There are now more choices for full-time online schools. Even students from kinder up to high school choose opportunities for online schools, which usually involve online teachers as well as a blend of asynchronous and synchronous online learning. Researchers say that blended or hybrid education yields the best results (Education Week, 2011), that is, when both an in-class and online teacher assist the students or when face-to-face instruction and support is combined with digital curriculum.

Indeed, studies have indicated that technology can be used for effective teaching and learning on all student levels (Ivers & Pierson, 2003). It can increase student achievement in various subject areas, including reading,

writing, social studies, sciences, and mathematics. In addition, it improves student motivation and increases their self-esteem and self-confidence; thus, making them more motivated to learn and more successful. Students have the perception that computers have a positive effect on their learning. As such, they are more likely to display “ on-task behavior when technology is involved” (Ivers & Pierson, p. 38).

It should be noted, however, that the benefits derived from technology is highly dependent on the way that technology is used. It is recommended that technology be used to support problem-based learning, problem-solving skills, and higher-order thinking. Computers should be used to support learning by allowing students to use it for the construction of knowledge; the exploration and assessment of information; the simulation of real-world problems; collaboration with others; and the articulation and representation of what they know.

Technology also enables students “ to learn and apply real-world skills” (Ivers & Pierson, p. 38). It creates new learning environments that promote multisensory stimulation, collaboration, higher-level thinking, and active learning. These environments in turn support cooperative learning, constructivism, and multiple intelligences.

Technology aids students’ learning by addressing their various intellectual profiles, based on theories that students have at least 8 various intelligences (Ivers & Pierson). Technology also helps students learn by enabling them to construct knowledge, which is manifested in their reflections, critical thinking, problem solving, decision making, and inquiries. In addition, technology promotes learning by encouraging the use of pairs and groups.

Working with others on the computer encourages increased motivation and performance; self reflection; increased use of elaboration and metacognitive strategies; accommodation of individual differences; peer teaching; and collaborative help giving and help seeking.

In conclusion, one reason for the decline in the educational achievement and attainment of American children is the lack of technology use in the American educational system, particularly in the classrooms. This can be largely attributed to economic reasons, that is, the lack of funding for computers and other technological devices as well as the lack of trained teachers.

It was established, however, that the use of technology in the learning process does have a lot of benefits where the best approach is the combination of face-to-face instruction and digital curriculum. In particular, the use of technology enables cooperative learning, constructivism, and multiple intelligences.

With enough support from both the government and the educational institutions, the use of technology can be integrated more into the classroom setting. This will surely improve the quality of education that American children get, which will in turn pave the way for a better future for them.

References

Education Week. (2011, September 1). Technology in education. Retrieved from

<http://www.edweek.org/ew/issues/technology-in-education/>

Harvard Graduate School of Education. (2011, February). Pathways to prosperity: Meeting the

<https://assignbuster.com/why-we-need-technology-in-schools-essay/>

challenge of preparing young Americans for the 21st century. Retrieved from

http://www.gse.harvard.edu/news_events/features/2011/

[Pathways_to_Prosperty_Feb2011.pdf](#)

Holland, J. (2010, September 28). The fifteen biggest lies about the economy:
And everything

else the right doesn't want you to know about taxes, jobs, and corporate
America.

Hoboken, NJ: John Wiley and Sons

Ivers, K. S., & Pierson, M. (2003, April 30). A teacher's guide to using
technology in the

classroom. Westport, CT: Libraries Unlimited

McKendrick, J. (2011, April 12). Surprise: US lags in technology adoption,
report says.

Retrieved from [http://www.smartplanet.com/blog/business-brains/surprise-](http://www.smartplanet.com/blog/business-brains/surprise-us-lags-in-)
[us-lags-in-](#)

[technology-adoption-report-says/14931](#)