

ONLINE EDUCATION: BEFORE, DURING, AND AFTER

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ABSTRACT

When the world shutdown in March 2020 due to the global COVID-19 pandemic, the world was forever changed. One major change that impacted billions was the delivery of education and the types and modes of instruction. As educators we were impacted firsthand by these changes and see the ongoing effects in our teachers and students. In this paper, we continue to the conversation about education, specifically discussing the limitations and advantages of online learning.

Keywords: online education, teacher education, student learning, virtual instruction

Online Education: Before, During, and After

In March 2020, everything changed when the world went into immediate lockdown due to the global COVID-19 pandemic. During the pandemic each country set its own guidelines pertaining to closures that included but was not limited to curfews, traveling, medical services, consumer entities, education, etc. It is known and understood that COVID-19 had drastic impacts on society and individuals; specifically, in the area of education and educational changes. Suddenly most methods of instruction moved from face-to-face to virtual and online education. When school closures went into effect due to the pandemic, UNESCO (2020a) reports that 1.38 billion learners worldwide were impacted. Thus, we believe that it is important to revisit the expected and unexpected outcomes that occurred to educational instruction worldwide. In this piece, online education and/or online learning is defined as education instruction that is delivered virtually through the web-based teaching (Lee, 2017; Moore et al., 2011; Ryan et al., 2016), most notably after March 2020, instruction included virtual learning platforms such as, Zoom, WebEx, Canvas, and Google to name a few.

Education in a Virtual World

As the authors, as well as educators and teacher educators we want to address two areas that continue to be topics within educational instruction and ongoing changes to education. The first are limitations or lack of inclusionary practices pertaining to online education and the second is to acknowledge advantages related to online education. With such immediate changes in education from face-to-face to completely virtually, it is important to discuss the impacts of these learning modes and how education has changed and continues to change.

Limitations of Online Education

With changes in educational delivery and instruction, plenty of discussion has occurred over the past two years regarding online learning. Most of the discussions pertain to the learning loss that has occurred as a result of the virtual options and education systems that were implemented to provide and support instruction to students during the Covid-19 (UNESCO, 2020b). According to research (Domingue et al., 2021; Ford et al., 2021) there were several causes for learning loss. Additionally, some researchers (Pandit & Agrawal, 2022; Department of Education, 2021) suggest that a lack of access to resources, efficient internet connections and accessibility, computer equipment and/or internet, were contributing factors in achievement gaps and lack of learning. Others (Hasudungan & Ningsih, 2021) have discussed that the quality of instruction via online education was less than that of face-to-face instruction. For example, instructors in a classroom setting are able to employ various instructional techniques, strategies, and groupings. Whereas, during online education, teachers are often relegated to more direct lecture methods of instruction when delivering content online and often relied on little to no interaction with students when materials were frequently distributed asynchronously. When online education is discussed as a whole the general consensus is that students suffered academically from the transition to online learning and that a return to face-to-face learning will help to undo the damage caused by online education

One major concern that arose out of online education was that teachers lacked the tools to teach virtually, and students lacked technical skills in two ways (Ford et al., 2021). First, early elementary and pre-k students missed out on the hands-on learning that often occurred during their in-person schooling. This may include instruction like handwriting, how to use scissors, and using tangible manipulatives, instruction that is nearly impossible to teach via distance learning with no real way for the educator to monitor the pencil-holding, the scaffolding of cutting techniques, and monitoring instruction with manipulative for two dozen students via zoom boxes. Similarly, reading instruction and reading fluency (Domingue et al., 2021) is hard to gauge when dealing with unstable Internet connections and background noises of students' houses or places of instruction. Online learning also meant that student support services were severely hindered as speech therapy and other student services that rely on in-person experiences. Second, younger students lack the literal computer skills to successfully participate in online learning. Young children are quick to learn, but with limited technology devices (e.g., laptops, computers, iPads, Chromebooks, etc.) learning online and learning computer skills at the same time were overtly

challenging for many learners, particularly young students. For instance, making sure their cameras were on and that they knew how to mute and unmute themselves make the educational process that much more difficult in an online setting.

Another interconnected concern related to virtual learning is the concept of time. Time in front of the screen and time management. Whether in education or in employment, many felt the pain of screen fatigue or body fatigue from being at the computer for countless hours, or in virtual (e.g., Zoom) meetings for much of the day. From young children to adults, screen challenges were persistent. While time management was also a challenge due to individuals' ongoing presence online. The boundaries of time were often not present because much of the learning, work, etc. were all done from one's home rather than from a classroom or a place of work.

As a result of the above-mentioned limitations, challenges with virtual learning also contributed to the creation of social isolation that resulted in other mental health issues (Department of Education, 2021). Children and adolescents, and adult learners alike, are social beings. So much of what they learn and how they learn is a result of their interactions with others and teachers. Whether it be the small things of learning, to share or waiting your turn, to other more major skills like public speaking or debate students missed out on these opportunities.

Advantages of Online Education

What is often ignored in conversations surrounding online learning are the student and learning successes, including learners from preK-12 to post-secondary. Online learning was an opportunity for some students to grow, develop, and participate in authentic learning that allowed for individualization of instruction.

One hallmark of virtual instruction was a heavy reliance on videotaped lessons intended to ensure all students received the same instruction. For example, one urban school located in the southwest United States, online instruction was used as a means to allow one teacher (i.e., math) to provide instruction to the whole school (i.e., art, music, physical education) or to split up the disciplines for which grade level teachers were responsible for (i.e., one teacher records the science lesson, one records the math lesson, one records social studies). Although this was creative and helped to support the teachers and save time, this was viewed as being disadvantageous to students and was beneficial to neurodiverse students.

While more traditional classroom instruction moves at a pace that benefits the most students, some students are forced to move at a speed that may not be beneficial to them or form their learning. Whereas, recorded lessons, such as those made more often and more readily available during the pandemic, allowed students to pause the video to process information, rewind the video to hear an explanation again, or even watch the video multiple times to gain a better understanding of the content or lesson. Each of these strategies are unavailable to students in a traditional classroom but provided students who benefitted from them to control their own learning and the speed at which material was introduced and required to be mastered.

Asynchronous learning removed the restrictions of traditional school times and/or settings. For students who needed to be employed or provide support in the home in other ways, this type of instruction allowed students to complete their coursework at times, and in settings that were most conducive to them, often outside of standard school hours and far away from the school building. Similarly, traditional college courses and requirements to attend classes in person can pose obstacles to students who wish to attend but have responsibilities that make attendance difficult. Some students were encouraged to attain a degree because the courses were offered asynchronously or online and thus allowed students to still be able to take care of their families or other responsibilities, but still able to work toward attaining and/or completing a degree.

The increase in online education also resulted in resources available to not only students, but individuals with internet accessibility. Academically, for all levels of learners' resources included: an abundance of read alouds (e.g., books, stories), not only by teachers and parents but by celebrities, which helped to promote, foster, and scaffold reading outside of the school setting; homework help and videos explaining concepts were readily available to students during this time; and opportunities to collaborate and work with others (peers and students) in multiple platforms. Additionally, virtual resources were made and shared for all, such as there were ample videos and workshops intended to help people find hobbies (e.g., gardening, cooking, etc.). Though not directly educational, these resources allowed students to learn and further develop concepts, ideas, and skills independently and that ability was transferable to their learning of academic concepts, while also identifying high interest subjects.

Online Education in a Post-pandemic Classroom

These delimitations and limitations are important for all learners and teachers, with a lack of awareness, learning challenges could persist. We now know that online learning does have positive benefits and can be a beneficial learning environment for students. But we also know that there needs to be a balance. Online learning should be a resource and tool that supports the learning and instruction, while also promoting and fostering learning, not as a secondary tool that is a hindrance to instruction, but as a resource that supports and provides more depth to the instruction.

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