Making Remote Learning Engaging

Denise Grandits¹ and Tina Wagle²

Abstract
This article provides extant background on online learning including best practice frameworks at multiple educational levels. The authors also discuss important considerations of remote and online learning when one is planning or teaching in that modality. Perhaps most importantly, this article details the account of one highly qualified teacher’s experience transitioning to remote learning during the spring of the COVID-19 pandemic, which can serve as an exemplar to others. This example demonstrates how teachers can be effective when mandated to utilize remote or hybrid teaching. We also share implications for the future of teaching and teacher preparation.

Keywords
remote learning, online, engaging, K-12, teaching

Remote (online) learning has garnered a significant amount of attention in the last several months due to the global COVID-19 pandemic in U.S. Schools. The traditional walls of education were closed, and educators needed to find a way to continue to teach but from a distance as all students were now confined to their homes. Research on best practices in online teaching and learning exists, and those of us who teach online regularly are familiar with such practices. However, educators not accustomed to this kind of teaching, including most P-12 teachers, were forced to get up to speed rather quickly. The closing of schools was so abrupt in the spring of 2020 that teachers did not have the time to become familiar with high quality online teaching practices and resources before they needed to begin remote instruction. Fortunately, some teachers were ahead of the curve and were able to model and share their knowledge with their students and fellow colleagues.

¹ SUNY Empire State College/Kenmore Tonawanda UFSD
² SUNY Empire State College

Thanks to Carmen Robles for informational input.

Corresponding Author: Denise Grandits, 156 Warren Avenue, Kenmore, NY 14217
Email: denisegrandits@gmail.com

© 2021 Grandits, Denise. This open access article is distributed under a Creative Commons Attribution 4.0 License (https://creativecommons.org/licenses/by/4.0/)
Teaching Online

Research supporting online teaching is more robust at the higher education level, given its greater popularity, than in K-12 virtual learning. In higher education, there are high quality resources for best practices, including the Online Learning Consortium and the University of Central Florida. The Online Learning Consortium, for instance, suggests that quality online teaching is based upon a framework of five pillars: learning effectiveness, scale, access, faculty satisfaction and student satisfaction (Online Learning Consortium, n.d.). The framework highlights key points to help faculty and staff develop courses that achieve their desired learning outcomes.

Similarly, the University of Central Florida’s Teaching Online Pedagogical Repository outlines best practices for online and hybrid teaching. Their specific criteria details course creation and delivery divided into three categories: course content, interaction, and assessment. (Teaching Online Pedagogical Repository, n.d). These three categories describe the tools and techniques that best support student learning, engagement, and achievement. These frameworks are useful in supporting high quality course creation but again, these are often developed at the higher education level. Furthermore, most students who take online courses in higher education are choosing to do so. When the COVID-19 pandemic hit in the spring of 2020, K-12 institutions closed, leaving no choice but to provide online instruction for a population that was not prepared for it.

There are few virtual schools at the elementary or secondary level, and thus the literature supporting online best practices at these levels is more scarce. Still, there are some resources including a study by DiPietro et al. (2008) who offer that successful K-12 online teaching must include a confluence of pedagogy, technology, and content. This study demonstrated that teachers who were successful teaching in this mode were engaged, cognizant of a variety of learning styles, knowledgeable, and flexible. Other studies, however, suggest that K-12 students studying online perform worse than their traditional school counterparts. “Prior comparisons of online and traditional public schools show that students in online schools lose between 0.1 and 0.4 SDs on standardized tests compared to students in traditional schools” (Kuhfeld, et al., 2020, p.10). This finding is distressing particularly if teachers are not prepared to teach online.

This article documents the experiences of an exemplary educator who transitioned seamlessly to K-12 online teaching both because she espouses the aforementioned integration of pedagogy, technology, and content, and because she had experience with online learning prior to the pandemic. Denise Grandits is a graduate of SUNY Empire State College’s Master of Arts in Teaching (MAT) program. This program has been hybrid since its inception in 2004, with students taking a significant number of online classes. Half of the classes are fully online while the other half are hybrid; all the material is online, but class content consists of some face to face meetings as well. Relevant to this piece is that the SUNY ESC MAT program was based on pedagogically and technologically important frameworks such as the International Society for Technology in Education (ISTE) Standards. This framework for educators outlines roles educators should play when teaching online. These roles include educator as learner, leader, citizen, collaborator, designer, facilitator, and analyst (ISTE, n.d.). Thus, courses in the MAT program were designed with high quality standards in mind. Students in the program become accustomed to the course delivery and are able to use this learning in their own teaching. This preparation proved useful during the pandemic crisis; they were experienced with online educational engagement and could implement those strategies in their classrooms. This article highlights important ethical and practical considerations and cautions that one should acknowledge while teaching remotely,
and it shares an example of one graduate’s (current K-12 teacher) smooth and effective transition into teaching online during the shutdown.

**Remote Teaching Cautions**

Education Law. A key piece of information teachers need to be aware of immediately is Education Law 2D, which speaks to the privacy of students. Taking effect in 2014, this legislation is explained as: The focus of the statute was to foster privacy and security of personally identifiable information (PII) of students and certain PII related to classroom teachers and principals. The student data protected under the statute consists of the same elements as are protected pursuant to the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. § 1232-g. By definition, PII includes, but is not limited to:

1. The student’s name;
2. The name of the student’s parent or other family members;
3. The address of the student or student’s family;
4. A personal identifier, such as the student’s social security number, student number, or biometric record;
5. Other indirect identifiers, such as the student’s date of birth, place of birth, and mother’s maiden name;
6. Other information that, alone or in combination, is linked or linkable to a specific student that would allow a reasonable person in the school community, who does not have personal knowledge of the relevant circumstances, to identify the student with reasonable certainty; or
7. Information requested by a person who the educational agency or institution reasonably believes knows the identity of the student to whom the education record relates (Keane and Beane, 2019).

The above serves as a legal mandate that teachers cannot give out any kind of information about students as listed above. Identifiers could be compromised easily over a technological setting. Thus, teachers need to be cognizant of these parameters as they continue with remote teaching.

Absenteeism and Engagement. An extremely disconcerting effect of the pandemic has been an increase in absenteeism. According to Lieberman (2020), “student absences have doubled during the pandemic” (para.4). A survey of nearly 800 students indicated a jump from a five percent rate of absenteeism to ten percent. Possible reasons include weak home internet connections, lack of punitive consequences, lack of motivation, or a shift in familial responsibilities. This increase is an alarming trend which could be alleviated somewhat with stimulating, engaging, and responsive instruction.

Axelson and Flick (2011) define student engagement as “how involved or interested students appear in their learning and how connected they are to their classes, their institutions, and each other” (p. 38). The authors state that engagement is a shared responsibility between student and institution, thus suggesting teachers play an active role in creating and sustaining student engagement. Inayat and Ali (2020) discuss this shared responsibility and the significance their interaction has on learning. They also state that teaching style has an important effect on engagement and learning. Positive interaction between teacher and student will increase motivation and achievement. Thus, it is crucial for teachers to
be prepared to teach all students with varied learning styles. As we know, every student learns differently according to his or her strength or preferred learning styles.

...that there exists a multitude of intelligences, quite independent of each other; that each intelligence has its own strengths and constraints; that the mind is far from unencumbered at birth; and that it is unexpectedly difficult to teach things that go against early ‘naive’ theories of that challenge the natural lines of force within an intelligence and its matching domains (Smith, 2020, p. 1).

Thus, teachers need to be prepared to teach all students. “Proponents of learning-style assessment contend that optimal instruction requires diagnosing individuals’ learning style and tailoring instruction accordingly” (Pashler et al., 2009. p. 105). This kind of differentiation can pose a challenge to any teacher but especially during an unplanned shift to fully remote teaching when one cannot expect all to have equal access to essential materials.

Accessibility, Copyright, and Inequities. Issues regarding accessibility must also be recognized while teaching remotely, and teachers need to remain in compliance with accessibility mandates for online teaching. Photographs and other images can convey concepts effectively and provide visual interest in course materials. However, there are copyright, intellectual property, and accessibility issues to consider in order to use images appropriately.

In addition to being careful about materials used and securing proper permissions, students will need social and emotional support as they head back to their classrooms. Ideally teachers will have received any student’s individualized education plan (IEP) prior to the commencing of the semester and will need to take into account those students’ needs while teaching remotely. Students will need to feel equipped and empowered to take on the challenges and possibilities of online learning so they can succeed. Some may head into the new school year with a bitter taste in their mouths over their experiences at the end of the 2019/2020 academic year. How teachers and families approach hybrid or fully remote learning currently and in the future will, no doubt, affect student perception of the situation.

Further, inequities may be compounded in both the digital learning environment and once students return to the classroom. Not all households have high speed internet access, and not all families have sufficient devices for student use. Additionally, as families struggled with social, emotional, and economic ramifications of the pandemic, the approach to education may have shifted. As students head back to the classroom, or as they continue to learn online, educators must be cognizant of the consequences of these inequities.

Digital Citizenship. Another important consideration involves digital citizenship. Jones and Mitchell (2015) define this as “using Internet resources to have youth (1) practice respectful and tolerant behaviors toward others and (2) increase civic engagement activities” (p. 2065). They describe the necessity for youth to act as good citizens as they are interfacing with the internet. Prior to the COVID shutdown, schools’ focus on digital citizenship centered mainly around students’ behavior while using the internet in school, students’ learning how to use the internet for appropriate and beneficial purposes, and keeping students safe in online communities. Digital citizenship soon took on a much broader definition and a more authentic experience for students (see Figure 1).

These skills are usually practiced and reinforced in classroom settings but not in organic digital environments. The COVID shutdown forced teachers and students to navigate digital citizenship skills at a moment’s notice. The expectations of students related to the schools’ codes of conduct had to be reconsidered in the COVID shutdown. Teachers and administrators needed to reevaluate student
conduct when students were not physically present in the school building. These traditional in-person codes of conduct were useful in establishing and maintaining appropriate student behavior in the virtual classroom. The tools of the meeting programs (Zoom, Google Meet) afforded teachers the opportunity to establish classroom norms just as they would if students were physically in a classroom setting. Of course, as with every experience in this unprecedented time, flexibility is crucial.

**Figure 1**
*The nine elements of digital citizenship (Ribble, 2015)*

![Diagram of digital citizenship elements]

Although New York State’s Computer Science and Digital Fluency Standards (2020) are still in the planning stages and will not be implemented until 2024, the standards are timely and necessary as students are functioning in digital environments both in and out of the classroom. For the sake of this discussion, we focus on the digital learning standards. According to the draft of the standards, digital literacy is a multifaceted concept that extends beyond skills-based activities and incorporates both cognitive and technical skills. It refers to the ability to leverage computer technology to appropriately access digital information; to create, share, and modify artifacts, and to interact and collaborate with others. Digital literacy includes understanding the benefits and implications of using digital technologies to be successful in our contemporary world (New York State Education Department, p. 47).

When teaching and learning transitioned from the traditional classroom to a fully online environment, students relied on the skills they had developed in their computer courses at school to successfully navigate the new learning environment. They needed to know how to access content and their teachers through virtual meeting platforms such as Zoom and Google Meet. They needed to be able to access the digital course content in learning management systems such as Google Classroom. They needed to learn how to demonstrate their learning in unconventional ways using technology. Although the standards are not yet in place in schools, it is undeniable that because of students’ lived experiences, they have already learned the basics of how to “be” in a virtual learning environment. Rather than sterile practice of these skills in an in-person classroom, many students demonstrated competency in the standards beyond the classroom walls and for actual reasons.
Teacher Account

For the first few weeks of digital learning, the co-author allowed students time to become familiar with their new reality. Although the teacher taught lessons on a daily basis, she understood that students’ social and emotional well-being were more important than content initially. Allowing students time to talk with each other before and after instructional time and opening up the chat board for them to use to talk with each other are vital components of the digital learning space in those first few weeks. Additionally, in order to facilitate open lines of communication in an uncertain time, the teacher used Google Voice and allowed students and parents to text questions or concerns at any time. Not only did this serve to disseminate information in a timely manner, but it also worked to establish trust and reinforce expectations about the nature of remote learning.

Only after students fell into a routine did the expectations morph into those resembling traditional classroom culture. For example, after evaluating the chat board, the teacher discovered that the conversations were turning too far away from content and more towards social check-ins. To assuage this issue, the chat was disabled for a few days with an explanation of the reason why. When the chat was opened again, the expectation was reinforced that the purpose of the chat was to engage in scholarly discussions and to ask questions of the teacher. Students were again instructed that chats were recorded in Zoom, and that any inappropriate conversations would be subject to the same types of intervention as inappropriate language would be handled in school. Because of the strong sense of community that was established throughout the school year and the trust that was further cultivated by the open lines of communication, students respected this expectation and had no further issues with inappropriate or off-task conversations in the chat.

Another issue overlooked initially was student tardiness to classroom meetings. Again, for the first few weeks, on-time participation and logging in was not expected. However, after the initial two weeks, students were expected to be “in” class within 10 minutes of class starting. In compliance with keeping students safe, the waiting room feature was utilized in Zoom to ensure that only students were entering the Zoom meeting. A note was posted to the waiting room that said if students were more than 10 minutes late, they would not be admitted to the classroom because of the disruption to learning. Again, because expectations were set and followed throughout the year and because the mutual respectful relationship continued to be fostered even in light of the pandemic, students responded positively to this change.

Lastly, one issue that was unexpected was that students would “come” to class in their pajamas, would be lying down in bed, or, in the case of some male students, would log into class without a shirt. As with most situations in the COVID shutdown, flexibility and reflective practices were crucial when addressing student behavior issues. Remote learning posed challenges to students, families, and teachers. Not all of these challenges could be planned for and needed to be addressed as the situations arose. Regardless, establishing high expectations and being mindful of the need to clearly outline acceptable behavior in unusual circumstances were the catalysts to successful online learning.

When schools closed abruptly in the spring of 2020, teacher familiarity with tools that could engage and motivate students from a distance, methods of delivering that instruction synchronously or asynchronously using virtual meeting platforms such as Zoom or Google Meets, and student proficiency with those tools were crucial to the success of remote learning. While some teachers created learning environments that closely mirrored in-person learning, others who were unfamiliar with educational technology struggled to do so and often relied on the expertise of their more-abled
colleagues. The reality in K-12 classrooms was that there was a disparity among teacher capacity to build engaging online learning communities. This impacted student and family perceptions of remote learning.

For those with experience in using online platforms to build courses in secondary education, the move to remote learning was less challenging. Using strategies throughout the school year in in-person learning allowed students to transition to online learning easier. Similarly, teachers who felt competent in delivering instruction online using a learning management system such as Google Classroom, Schoology, or Canvas did not need to learn how to use those platforms while navigating their content to a digital environment. Even though school districts have long touted the importance of educational technology in the classroom, the reality in many schools is that students did not have reliable, daily access to a device. Therefore, all the professional development that went into training teachers on how to use educational applications was often unpracticed because, no matter how valuable the tool, if students did not have access to a device, utilizing these potentially powerful learning tools was impossible.

For teachers who were fortunate to have devices available to students, moving to online learning allowed them to continue instruction and assessment in ways with which they were familiar during in-person learning while adjusting pedagogy depending on student needs. When the pandemic changed much we knew about what education, students from these learning environments had been immersed in effective, engaging educational technologies. Therefore, their transition to remote learning was relatively seamless. In the following section, we explore how one of the authors was able to effectively engage and motivate students to continue learning despite being isolated in their homes.

One of the authors is currently teaching 7th grade English Language Arts (ELA) in a large, suburban school district in Western New York. In the 2019/2020 school year, enrollment in her classes was approximately 100 diverse students. Throughout the year during in-person instruction, students were fortunate to have access to a Chromebook every day in ELA class. At the time, the district was not yet at one-to-one capacity with technology, meaning not every student was assigned a device to use during the day. It was unusual to have technology available in the classroom on a daily basis. As a reflective practitioner, deep conversation and analysis were useful to ascertain the effectiveness of different technologies. Since technology was available daily, data from best practices could easily be transferred to the remote learning environment.

This teacher had developed her stance as a new literacies practitioner over the course of a few years and during extensive research developed content, instruction, and assessment in line with multimodal teaching and learning. This allowed this teacher insight into the ways in which modes could be used in an ELA classroom (e.g., Bruce, 2010; Gee, 2010; Miller, 2007; New London Group, 1996; Sperry & Baker, 2016). Although new literacies pedagogy is not dependent on the integration of educational technologies, the ability to use them effectively added to the dynamics of the virtual classroom. Simply using a device, an app, or a website does not automatically mean that students are exposed to effective learning. However, finding ways to use multiple modes of learning in various formats, including educational technology, enhances student learning.

Familiarity with a learning management system, such as Google Classroom, Schoology, or Canvas, facilitates delivery of content and allows for instantaneous monitoring of student learning. Tools such as Peardeck, InsertLearning, and Google applications allow teachers to deliver instruction and to assess student learning in real time. However, not having students face-to-face posed additional challenges. Teachers had to quickly learn how to host live classes via Google Meet or Zoom, for example.
In the class addressed in this study, students joined ELA class at their preferred time via Zoom. Classes were initially held at 9am, 10am, and 1pm. Students were encouraged to join the class closest to their in-person class schedule but, as was the case with all of the uncertainty of a school shutdown, flexibility and understanding were needed to meet student needs. Eventually, as the logistics of distance learning played out and as students settled in the routine of remote learning, instructional time was adjusted to just 11am and 1pm each day. Then, after about a month of daily classes, students were polled on their feelings about synchronous learning. Overwhelmingly, they felt they could use more time to work on their other subjects, so class was adjusted to synchronous learning on just Monday through Thursday, with Fridays being office hours where students could reach out for additional support.

Of the 100 students, 85-90 of them attended class regularly on each of the instruction days. They were respectful of the learning environment and texted via Remind or Google Voice, or sent an email if they needed to be absent for class. Of course, as might be expected, some students struggled in the online learning environment. Daily attendance was kept, and students and parents were contacted after students failed to report to class after a few days. Using Remind, Google Voice, and email, frequent communication allowed teachers to check in on students to evaluate their educational and, in some instances, their social and emotional needs. Some families indicated they were struggling financially and socially. In these instances, information about food banks and other community services was provided. Many of the families were emotionally overwhelmed with the uncertainty of the health crisis, and many of them knew people who had contracted the virus. Finally, parents were faced with the daunting role of how to manage their own personal and professional responsibilities while taking on a new role of facilitator for their child’s education.

Synchronous learning was effective because of the use of some established educational technologies. One such tool was Peardeck. This interactive web-based program and Google extension allows students to respond to a variety of teacher-posed questions. Students type responses to questions or discussions, can manipulate images on the screen to indicate understanding, and can draw on their screens in response to questions. Unlike posting a PowerPoint or Google Slide presentation in Google Classroom, the teacher has full control over what information is displayed on the students’ screens. During the COVID shutdown, using Peardeck allowed students to explore a unit on poetry and to study a full novel, Lois Lowry’s classic, *The Giver*.

Figure 2 shows a question posed to students about the basics of poetry. The objective of this introductory lesson was to help students understand how to use their emotional response to some part of a poem to “latch on” for meaning; depending on the reader, the interpretation of the poem can vary among readers. First, one student read Billy Collins’ (1988) poem, “Introduction to Poetry” aloud to “shake hands” with the poem to hear it for the first time. Then, using a close reading strategy of reading the poem a second time to develop deeper understanding, the poem was read again to the students with a question posed to focus the purpose of their reading: how does your brain “see” a part of this poem? A sample of student responses is shown in Figure 3.

Data gathered throughout the academic year from this classroom indicated that students struggled with this deep understanding of texts, so guiding them through both the literal and figurative meaning of texts in a remote learning environment was even more challenging. Peardeck was effective in assessing student understanding of how to conduct poetry analysis using the skills they learned in remote classes. As was usually the case when Peardeck was used, students were extremely engaged and motivated to participate in the lesson. Besides being “fun,” Peardeck was an outstanding way to gauge student understanding of a concept. Every student responded to every question. Student responses could be
kept private or could be shared with the entire class. Students were excited to share their work. It was common for students to learn something from each other’s interpretations. These drawings often became the foundation for classroom discussions.

**Figure 2**  
*Teacher-Created Question using Peardeck*

New literacies practitioners are cognizant that students read and write traditional print-based texts, but that they also read and compose in many modalities. Peardeck was one tool that embraced multimodal literacies. Rather than rely solely on words in written responses, drawing and other non-text based responses allowed all students to participate in the learning. Not only was it fun, engaging, and motivating, it was a powerful pedagogical tool that allowed the teacher to pose higher level questions even in a remote learning environment and assess student understanding in multiple ways.

Another tool that was effective in delivering instruction and assessing student learning was InsertLearning. InsertLearning turns any webpage or document into an interactive, “chunked” text. Chunking texts is especially helpful for young readers so they can focus their attention on smaller parts of the text. This encourages close reading and can be very helpful in monitoring reading comprehension.
In order to introduce a unit on *The Giver* and dystopian literature, students first explored Kurt Vonnegut’s short story, “Harrison Bergeron” (1961). Discussion prompts, short response questions, multiple choice questions, and accompanying media were embedded within the document. As with Peardeck, InsertLearning meant every student answered every question. In the teacher dashboard, it was simple to monitor student activity and assess understanding of the text. This was a tremendous opportunity to reteach concepts or to redirect any student confusion about a text. Figure 4 shows a small section of the short story with the interactive teacher-created questions in InsertLearning.

When students and teachers are together in the classroom, teachers rely on ongoing checks for understanding, formative assessments, body language, and nonverbal cues to gauge student interest and learning. In a digital learning situation, teachers lose the ability to engage one-on-one with students in the moment. Finding ways to check student understanding in a remote learning environment was crucial during the spring hiatus. Furthermore, student engagement took on new meaning when students were away from the structure of the classroom. As demonstrated throughout the pandemic, it was difficult to maintain student attention and enthusiasm when meeting via virtual spaces.

Tools such as Peardeck and InsertLearning were crucial to engaging students in a remote learning environment. In this classroom, students had been exposed to both of these tools during traditional learning in the classroom prior to the pandemic. Therefore, they did not struggle with learning how to use the tools. They were already a part of their rigorous academic experiences. However, the tools proved successful in helping gauge student learning from afar. In remote learning, it was not unusual to have nearly 60 students in one “class.” It was critical to be able to assess student understanding of concepts and the texts in the moment. Certainly, there are many tools that would have accomplished similar outcomes, but Peardeck and InsertLearning are viable options for teachers to use in remote learning or hybrid learning classrooms.

Lastly, student expectations in the digital meeting space had to be clearly stated. Just as it is crucial to establish norms, procedures, and expectations in the classroom, these must also be in practice in a digital learning environment. Not only do these help students to understand what is expected of them so they can succeed but they also maintain a positive learning environment for all. While logging in on time, paying attention to the lesson, and being respectful were non-negotiable, it was important to reflect on virtual learning requests such as having students leave their cameras on for the duration of the class. What we learned during this experience was that not all families or students welcomed their classmates into their homes. This became a concern when it was obvious that living conditions or family dynamics might have revealed inequities. Mindful of the extra strain this might have placed on students and families, students were asked to turn their cameras on when they first logged on but then could turn their cameras off during class. However, if requested, they needed to either turn the camera back on or respond in the chat when prompted. Central to effective teaching is the importance of developing strong, respectful relationships with students. These relationships, if established during in-person, traditional learning, positively affected the degree of student participation, engagement, and appropriate school and digital behavior. It is undeniable that strong relationships between teacher and student impact student engagement, motivation, and learning in in-person or virtual environments. It was because of these relationships and the clear, high expectations set for her students throughout the year that so many of the students continued to thrive in a digital learning environment. Because parent and student communication pathways had been established during the school year and additional avenues such as Google Voice texting were made available to families and students during the pandemic, the same level of collaboration continued even when families were quarantined.
Conclusion

A common phrase uttered throughout the COVID 19 pandemic was that when we rebuild our infrastructures and services, we should build them smarter and better. The situation thrust teachers, students, and the education system into the spotlight. Throughout the experience, we learned many lessons and uncovered some concerns. As educational leaders, we must use our influence to embrace what we learned and to address the unearthed concerns so that our students succeed no matter where or how they receive their education. More historical inequities have been exposed during this pandemic, and all educators need to continue to try to engage their students at the highest level so that all students have the chance to succeed. This article demonstrated several techniques that can assist with this lofty yet essential objective within the classroom.

Implications for Teacher Education and Society

The pandemic and the lessons we have learned from the classroom have had an impact on teacher preparation. First and foremost, we have seen great disparities such as access to technology and varying levels of support while learning remotely. Despite these discrepancies, teachers must remember important techniques including universal design for learning, multiple intelligneces theory, and differentiation. Carolan and Guinn (2007), as master teachers, remind us, that differentiation does not mean teaching all concepts multiple ways but rather, “offering personalized scaffolding, using flexible means to reach defined ends, mining subject-area expertise, and creating a caring classroom in which differences are seen as assets” (p. 45). Although these techniques may be more challenging utilizing technology, it is important that teachers continue to incorporate these ideas in order to reach students.
It is too early to tell if remote learning will play more of a role in K-12 education as part of this “new normal,” but teacher preparation programs will need to continue to prepare teachers to be able to utilize engaging technologies. At the same time, it would be wise to caution the potential for technology fatigue. People need human interaction and connection, so we cannot rely solely on technology for quality pedagogy. Students and teachers had to utilize technology for the entirety of their teaching and learning in the spring, which uncovers other issues. Students need to feel connected. There is extant literature underscoring the social aspects of learning (Lave & Wenger, 1991; Salomon, 1998). These authors suggest that learning does not occur in isolation but rather in a social context. Additionally, studies have indicated several negative effects of technology on youth including behavior issues, attention, and health problems (Rosen et al., 2014). Teachers and teacher educators need to be mindful of educating the whole student. The pandemic has drawn attention to the necessary social emotional learning (SEL) students require, so more than ever, teacher educators should include non-content pedagogical skills like caring teaching skills, inclusivity, and culturally responsive teaching.

Teachers also need to recognize their own needs. The amount of planning has increased due to the shift to remote instruction, as has the level of stress and worry about their own students. As we continue with remote or hybrid learning, it is essential to take what we learned during our emergency hiatus to make future teaching even better. It became obvious that many educators require support in developing digital learning environments. Teachers need individualized instruction in developing online courses based on their particular needs and concerns. This takes time. Teachers feel the pressure of time throughout their regular workday. They will need the space, time, and support to develop these virtual learning environments. Thus, teachers need to be cognizant of their own SEL and overall well-being.

As mentioned previously, one striking social issue that became even more evident throughout the COVID 19 shutdown is the inequity of the availability of devices and even internet access in some homes and in some communities. As districts struggled to get devices into students’ hands, it became obvious that, as a society, we have not done enough to close the next educational divide: the digital divide. As educators and education policymakers, we must always reflect on our current situation. When we think about a fair and equitable education for all students, we cannot ignore that many of our students do not have access to a computer or device. Many families do not have internet access and, in some communities, internet access is not even available. We have been raised to believe that education is the great equalizer. In order for that to be true, we must acknowledge that the current educational divide is largely housed within technology inequities. We must strive to do better as a society.

Declaration of Conflicting Interests
The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The authors received no financial support for this research.

References


[https://onlinelearningconsortium.org/about/quality-framework-five-pillars/](https://onlinelearningconsortium.org/about/quality-framework-five-pillars/)


Salomon, G. (1998). Technology’s promises and dangers in a psychological and educational context. *Theory Into Practice, 37*(1), 4-10. [https://doi.org/10.1080/00405849809543780](https://doi.org/10.1080/00405849809543780)


