



# Buffalo Public Schools

*Putting children and families first to ensure high academic achievement for all*

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## RESEARCH CAPSULE

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### Remote Learning Through Different Lenses

#### AT A GLANCE

The purpose of this brief is to differentiate between remote instruction and distance education, to provide a SWAT analysis on remote instruction, to have a closer look at the stages through which it went, and to present perceptions of teachers about challenges faced. The brief also presents the standards developed by the *International Society for Technology in Education* (ISTE) to provide insight into what educators might want to focus on to make sure that students are empowered in education even if they are taking the instruction remotely.

#### Clarifying Terms: Remote Instruction vs. Distance Education

Distance education (DE) – especially the kind delivered through radio and television – has been used for decades to provide adult literacy education, particularly in lower-income countries (Aderinoye 2008). Today, DE is increasingly offered online via computers, mobile (cell) phones, tablets and other digital devices globally. DE classes are typically planned and designed months beforehand, whereas emergency remote teaching is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances (Hodges et al. 2020). *Remote instruction*, on the other hand, is a considerably new concept for K-12 level, and since it is new, there is disagreement among educators whether it is different from distance education or identical to it.

The central attribute of remote instruction is the separation by space during instruction, which relates to the delivery method. Distance education, on the other hand, is regarded as a pedagogical concept and relates to the application of instructional delivery strategies and uses a variety of delivery methods with learners constrained by time/space/lifestyle (Moore, 1997; Dooley et al., 2005) that also makes much stronger emphasis on creating relationships in the course. In order to use remote instruction to its full potential, it is important to capture the perceptions of educators about it as well as to look at different practices of its delivery for which a number of sources were reviewed.

Lindner, Clemons, Thoron and Lindner (2020) conducted a study with 17 teachers to identify if teachers differentiate between remote instruction and distance education. The results of the study suggested that while five teachers fall in the group who saw certain distinction between the terms, some others used them interchangeably. The source also presents strengths, weaknesses, opportunities and threats of the two

models of instruction. Thus, strengths, weaknesses, opportunities and threats of remote instruction are described as below:

- *Strengths.* Instruction is live, and teachers have greater opportunities to use not only paper but also online resources to support instruction.
- *Weaknesses.* The transition was very stressful, and students may not benefit from being lectured. The students are missing the opportunity to learn hands-on skills and they are deprived of teacher immediacy that is present in face-to-face classroom environment. Additionally, teachers try to ensure the students truly comprehend the material while they cannot use traditional grades.
- *Opportunities.* Students are given the opportunity to learn how to be independent and manage their time. This mode of instruction provides a chance to expand on material through more open discussions.
- *Threats.* Reaching student-to-instructor and student-to-technology engagements does not seem to be easy. Students with IEPs or ELLs are of major concern because they need additional help. Also, students facing poverty may not have internet access.

Thus, educators can find ways to build on the strengths and opportunities of the instructional model and work on weaknesses and threats. From this perspective, teachers can develop technology skills in students helping them access materials on the internet that can supplement course materials. Additionally, they can help students better utilize the independent use of time and time management providing techniques for it. More open discussions can be supported especially when they are in writing which will allow students to read one another's postings and participate in it. Teacher immediacy is an issue in distance learning. However, with more experience in teaching online, teachers may develop better understanding of their students' needs and be able to relate to students better.

### **How Remote Instruction Evolved**

Schuck and Lambert (2020) conducted a study with three special educator teachers to better understand: (i) what the phases of remote teaching were, (ii) how remote teaching evolved, what problems emerged for teachers teaching young students with disabilities, how and to what extent those problems were handled. The findings were as below.

#### ***Phases of Remote Instruction***

It appears that remote instruction went through three distinct stages: (i) *Stage 1*- making contact, (ii) *Stage 2* - establishing routines, and (iii) *Stage 3* - transitioning to academics.

*Stage 1: Making Contact.* During this stage, the focus was on making contacts with students and families and setting up the technology rather than on academics. During the first weeks, teachers were making sure that all families felt supported and had access to the technology necessary to engage in remote learning. They were making sure that families would have enough information to understand how the learning process would be managed and so on. However, as the results of the study suggested, teachers had trouble reaching some families, and not all picked up the devices immediately. At this stage, parents were primarily concerned with their children's emotional state and subsequent behaviors because students' routines were upended. So, this stage was organizational so that a structure could be created at home to teach students remotely.

*Stage 2: Establishing Routines.* This stage started about two weeks after the closing of physical schools as teachers began to provide additional services to students. By this point, focus was shifted away from the paper packets sent home at the beginning of the school closure, and the teachers began to rely on the school's digital learning system for communication and academics. Now that the majority of families were connected, this stage focused on creating new routines at home in order to support learning, as well

as the teachers developing their own routines on how to provide instruction to students. Teachers reported that with time they saw more parents and students attending Zoom meetings.

*Stage 3: Transitioning to Academics.* Teachers reported that this stage was not very smooth. They felt tension between their academic expectations that they normally would set for their students and the reality of their students' families' drastically shifted lifestyles. They realized that they would not be able to do everything they wanted via remote instruction. The meetings first were focused on social activities (e.g. stories, songs), but later they gradually shifted to a more academic curriculum, while still preserving the social emotional goals. Teachers were holding both synchronous meetings and giving homework. While they were attempting to incorporate more academics into their teaching, they were struggling between socio-emotional and academic goals throughout the entire period of teaching remotely.

### **Challenges Faced During Remote Instruction**

The main challenges that teachers mentioned were: (i) inequity of support and resources at home; (ii) reliance on at-home support, and (iii) changes in the teaching experience.

***Inequity of Support and Resources at Home.*** The inequity of resources and access to technology was a common topic amongst the teachers. There was wide variation in the amount of support students were given at home. Some students consistently had an adult working alongside them all day, whereas other students did not receive any one-on-one school assistance. The remaining students sometimes had adult support, but not consistently. Many caregivers were still working at this time, either from home or outside the home as essential workers. Food insecurity and other economic realities were stark. One of the teachers specifically highlighted the fact that distribution of resources is not equitable at home as it is at school.

***Reliance on At-Home Support.*** One of the major changes that occurred with remote instruction was that these special education teachers now had to rely on support from parents or other caregivers to facilitate education. The students in their classrooms had significant support needs, and in most cases required support from an adult or older child to engage in educational activities.

- a. *Learning at School vs. Learning at Home.* Remote instruction also created an opportunity for the teachers to see their students in a new light: their home environment. By witnessing students working at home, and interacting with family members, the teachers realized that not all of the work they had been doing in the classroom was being translated to the home. Some parents struggled with getting their child to sit down and do school-work. An explanation to this was that teachers and parents have different responsibilities to the child. This may be related to the fact that parents and teachers have different roles and responsibilities to the child, as well as different expectations, and now were forced to take on new roles.
- b. *Parents as Partners.* Teachers also realized that they could not apply strategies to address problems that arose as they would do in physical classrooms. Therefore, they felt that it was important to have parents, at least those who were able to, be regularly involved in remote instruction so that students could be reached. The role of parents also changed. They became educational partners. But teachers realized that most parents are not trained in behavioral and learning strategies in the same way that classroom teachers and paraprofessionals are. So, they started using Zoom conference calls with parents to try to bridge the gap between the classroom and home. However, not all efforts to include parents in teaching went smoothly, especially in those cases when parents were expected to implement more complex teaching strategies. Trying to help parents created some new task for teachers. Now, they were not only expected to provide remote instruction, but

they were also trying to design professional development for parents in a much more involved way than ever before.

- c. *Teaching Students with Limited Adult Support.* While teachers did their best to involve parents in the educational process, as mentioned earlier, there was wide variation in the amount of support students were given at home. Not all students had an adult working alongside them all day. So, teachers reported making videos for the students who did not have sufficient support. This added a new task for teachers.

**Changes in the Teaching Experience.** Beyond the challenge of trying to teach parents how to implement educational strategies and/or having to worry about reaching students who had limited adult support, teachers faced additional changes in how their teaching looked during remote instruction. Their new teaching experiences related to teaching through a screen, accountability, grading, and attendance along with shifting work conditions.

- a. *Teaching Through a Screen.* Since digital interfaces mediated remote instruction, teachers reported feeling the screen as massive barrier to their communication and pedagogy. One teacher noted that for young students, teaching relies on modeling and encouraging joint attention. Without the ability to use manipulatives, model what to do, and direct her students' attention with her eyes and body, the teacher saw her students struggle, even with activities she knew they had mastered. Teachers felt that something fundamental was missing not being able to sit next to the students to work with them. Furthermore, from their perspective students were deprived both from interaction with their teachers and with their peers. Teachers also noted that using the video camera during Zoom meetings was important for better interaction.
- b. *Accountability, Grading, and Attendance.* From teachers' perspectives, it was difficult to meet the accountability requirements and to provide feedback because they could not grade students. Without grades, it was difficult to provide specific information to homes about student learning.
- c. *Shifting Work Conditions.* Teachers were feeling personal change in their jobs as teachers while teaching remotely. Given everyone's heightened stress, the increased focus on socio-emotional support, and uncertainty regarding academic progress, they were questioning themselves whether they were doing the right things, or whether they could do things better. In addition to this, there were a number of virtual meetings that teachers were expected to attend each day, on top of their teaching responsibilities and while they saw the potential benefits of the meetings, they also felt that they had a sense of anxiety driving them to attend the meetings, and they were worried that they might miss out on some important information if they do not attend. However, the virtual meetings did not seem to cater to all their needs and from their perspective, some were poor replacement for the face-to-face contact that they loved engaging in.

### **Best Practices for Providing Remote Instruction**

Morgan (2020) discusses best practices for implementing remote learning during a pandemic such as: (a) ensuring equity, (b) communicating expectations clearly, (c) providing student-centered learning, (d) using free-high quality resources, and (e) responding to the emotional toll.

- a. *Ensuring equity.* In order for all students to benefit from online learning, they need to have reliable sources to get online. Unfortunately, a considerable number of households do not have internet access. Even when all students had internet access, equal access was still problematic

because, for instance, some parents with children needing special services mentioned that online instruction was ineffective for their kids preferring the services of in-person paraeducators (Tanner 2020).

- b. *Communicating expectations clearly.* The source underscores the importance of communication at different levels and suggests creating a list of FAQs and guides that can provide the needed information to different stakeholders. Different modes of communication such as through text messages, emails, website and so on have also been listed.
- c. *Providing student-centered learning.* This approach to education occurs when students change roles from passively receiving information to actively participating in a process that emphasizes discovery. For example, instead of using technology to present information to students, teachers can provide them with opportunities to work on projects, use digital tools to collect information, and work with peers to create presentations as they share ideas (Chen 2010). Teachers are advised to avoid assigning busy work because students may not have all the needed materials at home as well as support to complete them. They are advised motivate students instead by communicating through live chats, virtual meetings, and video tutorials (Snelling and Fingal 2020). Additionally, teachers are encouraged to provide clear directions for short assignments similar to those they would assign at school (Anderson 2020).
- d. *Using free high-quality resources.* Plenty of free high-quality resources can be obtained online. For instance, virtual field tours to different countries, virtual visits to museums and planets. can help students in to obtain new information and to expand their vocabulary and to develop technical skills (Morgan 2015b; Murphy 2020).
- e. *Responding to the emotional toll.* Teachers are also advised to check students' feelings because being isolated at home can create fear or anxiety, due to remote instruction. During stressful times, heart and passion may be more important than the content needing to be covered.

## The ISTE Standards for Students and Educator

In 2016, the *International Society for Technology in Education* (ISTE) developed seven standards for students to help them succeed in today's high-tech society. In the following year, in 2017, seven standards for educators designed were to help them in transforming students into empowered learners. These standards are equally applicable to remote instruction. The standards are below.

### Student Standards

1. ***Empowered Learner.*** This standard is beneficial because it was designed to encourage students to take an active role and to demonstrate their competency to use and choose technologies to achieve their learning goals. Students acquire feedback to enhance their skills, customize their learning environments, and build networks.
2. ***Digital Citizen.*** The second standard focuses on increasing student awareness of the responsibilities and rights of participating in a digital world. Students use technology in safe and legal ways. They also demonstrate a respect for the rights of sharing intellectual property.
3. ***Knowledge Constructor.*** The standards for students are also designed to build knowledge. Students enhance their understanding of the world by applying effective research methods to find information for their creative and intellectual pursuits. This process encourages the development of theories and ideas.
4. ***Innovative Designer.*** The fourth standard promotes creativity. Students design new solutions for real-world problems using different types of technologies. They use their critical thinking skills as

they work on open-ended problems. Students also engage in activities that deal with design constraints and calculated risks.

5. **Computational Thinker.** This standard emphasizes exploring and finding solutions to problems by using a variety of technologies. Students collect data and analyze them to make decisions and problem solve. They enhance their understanding of complex systems and automation. Automated solutions are created and tested through a series of steps.
6. **Creative Communicator.** The sixth standard allows students to create original works. One of the ways they can achieve this goal is by remixing digital resources into new ones. Students produce new content by customizing it for their intended audiences.
7. **Global Collaborator.** This standard focuses on broadening students' perspectives. Learners use digital tools to connect with students from different cultures and backgrounds. They use collaborative technologies to explore global and local issues and think about possible solutions from multiple viewpoints.

## Educator Standards

1. **Learner.** This standard emphasizes the continued growth in technology skills educators need to make. They achieve this goal by working with other professionals and exploring promising practices that enhance student learning. They participate in professional networks and stay updated on research that improves student learning.
2. **Leader Educators.** Look for leadership opportunities that shape and advance teaching and learning. They urge for equal access to technology to meet the needs of all students. They also serve as models for their colleagues, exploring and identifying new technological tools for learning.
3. **Citizen.** This standard involves creating opportunities for learners that will lead them to make socially responsible contributions. Educators mentor students on using technology safely and ethically. They teach them the importance of protecting data privacy and managing personal data.
4. **Collaborator.** Educators also need to spend time collaborating with students and colleagues. With colleagues, they work to create learning experiences using digital tools. And with students, they use new digital tools to diagnose and troubleshoot technology problems.
5. **Designer.** This standard encourages educators to design activities that are learner driven and that reflect learner variability. Educators use technology to personalize learning experiences that promote independent learning and accommodate students' needs.
6. **Facilitator.** Educators create an environment in which students take ownership of their learning. They establish learning opportunities encouraging students to problem solve and innovate. They model creative expression and manage learning strategies in digital platforms and virtual environments.
7. **Analyst.** This standard focuses on using data to support learners. Educators use technology by designing formative and summative assessments to provide feedback for pupils. This process guides progress as educators communicate assessment data with students and parents to promote student self-direction.

## Conclusion

Remote instruction was superimposed on K-12 and school districts courageously embraced the challenge. However, as it becomes clear from the discussion above, remote instruction proceeded through certain stages each of which had challenges of their own. It is very important to better understand how teachers perceived the process through which remote instruction proceeded, as well as where the challenges were/are and which ones have been addressed and if they have not been addressed, then which ones still remain. A focus on the areas that need to be in the center of the attention of educators is also

important. It is also assumed that the ISTE standards can help better fine tune the models of remote instruction currently used by school districts. After all, although we changed the mode of instruction, our target is still student learning and we are still interested in learner empowerment in learning.

## References

- Aderinoye, R. (2008). Literacy and communication technologies: Distance education strategies for literacy delivery. *International Review of Education*, 54(5-6), 605-626.
- Anderson, L. 2020. 'Smiles are infectious': What a school principal in China learned from going remote. EdSurge. <https://www.edsurge.com/news/2020-03-20-smiles-areinfectious-what-a-school-principal-in-china-learned-fromgoing-remote>.
- Chen, R. J. 2010. Investigating models for preservice teachers' use of technology to support student-centered learning. *Computers & Education* 55 (1):32–42. doi: 10.1016/j.compedu.2009.11.015.
- Dooley, K. E., Lindner, J. R., & Dooley, L. M. (2005). *Advanced methods in distance education: Applications and practices for educators, administrators and learners*. IGI Global.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*, 3. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learnin>
- Lindner, J., Clemons, C., Thoron, A., & Lindner, N. (2020). Remote instruction and distance education: A response to COVID-19. *Advancements in Agricultural Development*, 1(2), 53-64.
- Moore, M. (1997). Quality in Distance Education: Four cases. *The American Journal of Distance Education*, 11(3): 1-7.M
- Morgan, H. (2015). Virtual field trips: Going on a journey to learn without leaving school. *Childhood Education* 91 (3):220–2. doi: 10.1080/00094056.2015.1047316.
- Morgan, H. (2020). Best Practices for Implementing Remote Learning during a Pandemic. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 93(3), 135-141.
- Murphy, C. 2020. Social distancing: Six virtual tours. USA Today. <https://www.usatoday.com/story/tech/2020/03/16/social-distancing-free-virtual-tours/5060244002/>.
- Schuck, R. K., & Lambert, R. (2020). "Am I Doing Enough?" Special Educators' Experiences with Emergency Remote Teaching in Spring 2020. *Education Sciences*, 10(11), 320.
- Snelling, J., and D. Fingal. 2020. 10 strategies for online learning during a coronavirus outbreak. International Society for Technology in Education. <https://www.iste.org/explore/10-strategies-online-learning-during-coronavirus-outbreak>.
- Tanner, N. 2020. Northshore School District 'pauses' online learning program, citing equity issues. GeekWire. <https://www.geekwire.com/2020/northshore-school-districtpauses-online-learning-program-citing-equity-issues/>