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COLUMN: GUEST EDITOR'S NOTES

Introducing a Special Collection of Papers on k-12 online learning and Continuity of Instruction after Emergency Remote Teaching

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In the spring of 2020, the term 'emergency remote teaching' began to emerge to describe what was occurring in education at all levels, despite the more commonly used term "online learning" dominating media descriptions of the instruction offered to students forced to remain at home (Hodges et al., 2020). This concept was further developed, specifically for a K-12 context, by Barbour et al. (2020). The basic premise was that what happened during the Spring 2020 was a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated. The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. Essentially a phase of education that could be described as a "rapid transition to remote teaching and learning," which in some instances eventually included "(re) adding basics." What should have happened during the 2020–21 school year was an "extended transition during continued turmoil" – even an eye to transitioning to an "emerging new normal." However, what actually happened was a continuation of the temporary access to instruction and instructional supports – just a little more planned.

How can the K-12 system be more prepared to offer true online learning during the next crisis? What can be done or what do we need to know to ensure that the distance learning experiences that are put into place reflect necessary instructional planning, using a systematic model of administrative procedures, and course development. It also requires the careful consideration of various pedagogical strategies. These pedagogical considerations are used to determine which are best suited to the specific affordances and challenges of delivery mediums and the purposeful selection of tools based on the strengths and limitations of each one. Finally, careful planning requires that teachers be appropriately trained to be able to support the tools that are being used, and for teachers to be able to effectively use those tools to help facilitate student learning.

Through this particular lens, we invited a wide range of scholars in the field of K-12 distance and online learning to submit their ideas to this special collection of papers. Scholars were asked to frame their proposals with an eye to how their study informed the way that K-12 online learning could provide a continuity of learning that too often did not occur during these current COVID-19 disruptions. Based on the initial proposals, we invited a cohort of scholars to submit a full manuscript that was submitted through the traditional *TechTrends* peer review system. I served as handling editor for most of the papers in this special collection, however, those papers that I was an author or co-author on were handled by *TechTrends* Editor-in-Chief, Charles B. Hodges.

One of the most common themes that has come out of the transition to remote learning has been the lack of preparation provided to teachers to be able to teach in mediums outside of the traditional classroom as a part of their pre-service and in-service teacher preparation programs. In "Is It Any Wonder, I Reject You First: Pre-Pandemic Perceptions of K-12 Online Learning," Jason Siko and I document the fifth round of a multi-year action research project designed to improve the curriculum and quality of instruction related to K-12 online learning in an in-service teacher education program. For educators to be better prepared for the next short-term or long-term disruption that might occur, more teacher

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preparation programs need to include curriculum related to the provision of K-12 distance learning. The lessons from this focused action research project, as well as the curricular resources, could serve as a model for other teacher education programs.

Mary Rice, in her article "Special Education Teachers' Use of Technologies During the COVID-19 Era," touches on another area where K-12 were ill prepared – the provision of special education in remote learning settings. As a researcher who came out of the Center for Students with Disabilities and Online Learning, Dr. Rice is well situated to understand the potential to serve students with disabilities in distance learning settings. The study described in this article outlined how well-meaning professionals were able to maintain a level of support that was compliant, but a lack of resources and adequate training prevented these professionals from truly leveraging the potential that K-12 online learning has to offer students with disabilities.

At the same time that teachers were unprepared or underprepared to shift to remote learning, school and district leaders were just as unprepared to support their educators during that shift. In her article entitled, "Leading Remotely: Competencies Required for Virtual Leadership," Mary Elizabeth Azukas examined the perceptions of K-12 online school leaders on the knowledge, skills, and aptitudes that they felt virtual school leaders should possess. The results of this study, and studies like it, should be instructive to educational leadership programs throughout the United States and internationally.

Interestingly, in the only study that specifically examined the impact that pandemic pedagogy had on educators' practice when then returned to the classroom, Christie Martin, Drew Polly, and Kristin Harbour explored how much mathematics teachers continued to utilize digital technologies in their subsequent classroom teaching. The observation that teaching online changes an educator's practice in other settings is a longstanding line of inquiry in the field. However, these earlier studies were focused on teachers who chose to teach at a distance, not teachers that were thrown into the environment with only days notice. Their article "Examining How Emergency Remote Teaching Influenced Mathematics Teaching" found that the experience of being forced into a remote teaching context had a number of positive impacts on their face-to-face instruction.

In "Where Do They Go? An Investigation of K-12 Online Learners Process for Obtaining Support" I examine data collected prior to the pandemic that examined how a group of rural high schools students, who were engaged in a supplemental online learning program, went about seeking content-based support. The article illustrated the disconnect between the institutional resources provided by the online program and what the students actually sought out and used. As K-12 online learning begins to emerge into a new normal, there will be an increased knowledge of the opportunities that it has to offer – which should lead to an increase in the enrollment in formal K-12 online learning programs. Understanding how best to support those students that might enroll in one or two courses to supplement their face-to-face offerings will be important to ensuring that students can have success in this environment, and that the mistakes of remote learning are not repeated.

Finally, rounding out this special collection, Dennis Beck, Jered Borup, and Camie Wood also examine an issue that existed independent of the pandemic. In their article "The Role of the Advocate in Cyber Schools During the COVID-19 Pandemic," the authors examine the role of a non-teaching professional to provide support for full-time K-12 online learning. Some – including myself – have referred to full-time cyber schooling as publicly-funded homeschooling – as the model has historically required the active presence of a learning coach (often a parent or guardian) in order to have any hope for success. This study examines a unique role to provide students with soft skills support, which removes the necessity of the parent/guardian being physically present and actively involved in their child's schooling. As was shown over the past two years, one of the primary stressors on the K-12 school system was the need for family members to remain home to supervise and support their child's remote learning.

Overall, this collection of articles represents both the impacts of emergency remote teaching in post-pandemic practices, and the lessons that pre-pandemic projects can provide on a post-pandemic landscape. However, it is important to underscore that research into the initial emergency remote teaching, and the subsequent remote teaching, should also begin to focus on what happens during the next disruption to the school system. Over a decade ago, Alpert (2011) described how Hong Kong had utilized online learning to provide continuity of learning for students during the 2003 SARS outbreak that closed schools. The same thing occurred in 2008, when Hong Kong schools were forced to close due to H1N1 (Latchem & Jung, 2009). Similarly, Barbour (2010) described that:

> in Singapore online and blended learning was so pervasive that teaching in online and virtual environments was a required course in their teacher education programs and schools are annually closed for week-long periods to prepare the K-12 system for pandemic or natural disaster forced closures. (p. 310)

In fact, there have been several explorations of the use of online learning to address short-term and long-term

closures due to natural disasters (Hua et al., 2017; Mackey et al., 2012; Milman, 2014; Schwartz et al., 2020; Swetlik et al., 2015). As such, researchers must also look to the past two years for lessons that can be learned to better prepare for the next time.

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