ONLINE EDUCATION: Teaching in a Time of Change

• Paper / Proposal Title:
Switching to Online Education: Understanding K-12 Teaching Challenges During the COVID-19 Pandemic

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• Abstract (300 words):
When Covid-19 was declared a global pandemic, the move to online education was a radical departure from business-as-usual for the majority of K-12 teachers (Week, 2020). There are inherent challenges with online education; however, given the swift change for K-12 classroom teachers, a different set of challenges may emerge. It is important to understand the challenges faced during the Covid-19 pandemic in order to develop a plan to solve them so that we can better educate our young people during extended school closures. The guiding questions for this investigation were: What are the biggest challenges for teachers during the COVID-19 shutdown? How do reported challenges compare to the typical challenges of online education?

A survey was designed and sent to K-12 in-service teachers nationwide consisting of questions related to general demographics, professional experience, technology use, and two open-ended questions. Respondents were recruited utilizing a snowball sampling approach (Cohen, Manion, & Morison, 2011). In total, 114 teachers completed the survey.

Surveyed teachers were mostly concerned with how to deliver content (21.1%), lack of person connection (15.8%), and how to differentiate instruction (11.4%). They also
expressed concerns for how to assess students (7.0%), feeling unprepared (7.0%), dealing with parents (5.3%), and having more accountability (4.4%). Our teachers supported many themes from the literature. However, over 10% of teachers felt that differentiating instruction online was a tremendous challenge which was not emphasized in the literature.

Surveyed teachers were also concerned for their students; they expressed concern for engagement (13.2%), accountability (13.2%), learning (12.3%), and students’ well-being (8.8%). A notable percentage of teachers (15.8%) were concerned about the students’ access to technology. Again, our teachers supported many themes from the literature. However, over 10% of teachers felt that making students accountable was a tremendous challenge which was not emphasized in the literature.

• Author(s) Biography (200 words each):

Denise Bressler: Dr. Denise Bressler is a Research Scholar at East Carolina University. For over 20 years, Dr. Bressler has been investigating how innovative technology can be an effective educational tool. Preeminently passionate about learning, Dr. Bressler designs and studies innovative STEM experiences in formal and informal environments to immerse students in deeper learning. Early in her career, Dr. Bressler developed the mobile learning initiative called Science Now, Science Everywhere which received over $1 million in funding from National Science Foundation (USA). While working on her Ph.D. in Learning Sciences and Technology, Dr. Bressler created a series of mobile augmented reality games called School Scene Investigators which can be played with WiFi-enabled iOS devices and quick-response codes posted in a school environment. Her games have been shown to engage students, support collaborative learning, and increase interest in forensic science. Dr. Bressler is particularly interested in game-based learning environments, and creating learning experiences that promote student engagement and collaboration. In addition to numerous national and international presentations, Dr. Bressler has published multiple articles and book chapters on these topics. Dr. Bressler is also working on her first book titled "Unlearning the ropes: The benefits of rethinking what school teaches you."

Leonard Annetta: As the Taft Distinguished Professor of Science Education at East Carolina University, Dr. Annetta’s research has focused on innovative technologies and the effect of Serious Educational Games on science learning of teachers and students in underserved populations. He has been awarded over $19 million as lead Principal Investigator for his research to date and has won numerous awards and honors for his work. In 2008, Dr. Annetta was honored with three awards for his extension work teaching K-12 teachers and students’ video game design and creation. These awards were progressive from the College of Education Outstanding Extension Service Award, to the induction into the NC State University Academy of Outstanding Faculty Engaged in Extension to the Distinguished Alumni Engaged in Extension and Outreach award. Moreover, Dr. Annetta has twice been awarded the National Technology Leadership Initiative Fellowship in Science Education and Technology from the Association of Science Teacher Education and the Society for Information Technology and Teacher Education. He has thrice been invited to the National Science and Engineering Festival as one of the top 50 speakers in STEM.