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## PREPARING TECH-SAVVY TEACHERS



Online learning exists in the uncomfortable space between overhyped panacea, harmful technology, and modern-day necessity. Given the uncertainty of in-person schooling during the pandemic (which may again become intense and debilitating) and future disruptions, it's this element of necessity that should prompt some deliberation in teacher preparation circles.

Lessons from the pandemic era have shown us that online platforms can offer vital learning opportunities and connections. And they have shown us that skill development is crucial for this mode of teaching and learning to be most successful.

In the spring of 2020, circumstances required that teachers swiftly and completely shift into new and unfamiliar modes of instruction during a stressful period of crisis. This shift was made more difficult because educators were insufficiently prepared to use technology to teach in blended or remote settings, according to an article published recently in the peer-reviewed *Journal of Technology and Teacher Education*, authored by Charles Hodges of Georgia Southern University, NEPC Fellow Michael Barbour of Touro University, and Richard Ferdig of Kent State University.

Even setting aside the role of pandemics, it is likely that schools will continue to use remote learning, facilitated by technology, in other situations such as bad weather, student illnesses, or extended learning time. “It should be clear that the ability to maintain continuity of instruction using online delivery is no longer a stopgap measure, but a reality of teaching,” the paper’s authors contend.

Even functions that predate today's technologies involve an element of online learning. For instance, students may learn online as they complete homework their teachers assign. They may be asked to use the internet to conduct research in and out of class-time. They need to develop media literacy skills to help them navigate the internet. More broadly, as 1:1 computing is now widespread in US schools (perhaps not beneficial, but nonetheless common), teachers need to know how to effectively use contemporary technology in the classroom.

Here are six ways Hodges, Barbour, and Ferdig suggest that teacher education programs can better prepare their graduates to incorporate technology effectively into K-12 instruction:

1. Pre-service teachers (PST) should experience online learning as students. "Such experiences would benefit PSTs through the development of empathy for learners and self-efficacy for teaching," the paper's authors write.
2. PSTs should also have field experiences that involve online learning so they can observe how skills they have learned in their own classrooms play out in real-world settings.
3. Educators and researchers may need to develop new and better ways to evaluate PSTs' progress toward learning how to incorporate technology into their instruction, in order to facilitate improvement.
4. Teachers need to know what effective online instruction looks like. Along these lines, Hodges, Barbour, and Ferdig suggest developing standards based on research rather than allowing standards based on, for instance, corporate goals for ed-tech products, to guide educators in their practice.
5. They also suggest incorporating technology into most or all teacher preparation courses, in addition to offering standalone technology courses.
6. Bodies that accredit teacher education programs need to adopt approaches that encourage programs to effectively prepare their graduates to teach online and to teach using technology.

"As the authors are professors and researchers in the field of educational technology, there may be some belief that our vision is biased toward the use of technology in education," Hodges, Barbour, and Ferdig conclude.

However, events since the beginning of COVID-19, have made it clear that OBL [online and blended learning] is no longer a niche area to be considered by academicians and a relatively few practitioners and learners. All teachers need to be proficient with OBL for a variety of circumstances.

## NEPC Resources on Virtual Education

This newsletter is made possible in part by support provided by the Great Lakes Center for Education Research and Practice: <http://www.greatlakescenter.org>

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