

Introduction to Themed Issue: Technology to Support and Enhance Professional Development Schools

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Abstract: The purpose of this special issue to provide teachers, higher education faculty, and district personnel with ideas and resources on how to integrate technology into school-university partnerships and within the work of Professional Development Schools. The articles featured in this special issue highlight a range of innovative practices that utilize technology to enhance student and learning for all stakeholders and they describe how the work within PDS schools and partnerships is evolving in response to emerging technologies.

KEYWORDS: emerging technologies, internship, Professional Development Schools, teacher preparation, technology integration

NAPDS NINE ESSENTIALS ADDRESSED:

1. A comprehensive mission that is broader in its outreach and scope than the mission of any partner and that furthers the education profession and its responsibility to advance equity within schools and, by potential extension, the broader community;
2. A school–university culture committed to the preparation of future educators that embraces their active engagement in the school community;
3. Ongoing and reciprocal professional development for all participants guided by need;
4. A shared commitment to innovative and reflective practice by all participants;
5. Engagement in and public sharing of the results of deliberate investigations of practice by respective participants; and
8. Work by college/university faculty and P–12 faculty in formal roles across institutional settings

“One of the most important aspects of technology in education is its ability to level the field of opportunity for students.” -John King, Former U.S. Secretary of Education

The Commission on Effective Teachers and Teaching (CETT; 2011) identified effective integration of a range of cutting-edge technological tools as one of four key qualities required for a new 21st century education system. Current innovations in technology coupled with advances in understanding how students learn have established a foundation upon which the way instructional technology is viewed in schools today is changing. Nationally, there is a growing

emphasis, both at the P-12 and university level, to effectively integrate technology that promotes teaching and learning. In a recent review of the literature, Delgado, Wardlow, McKnight, and O'Malley (2015) found increased access to technology in today's classrooms, with the average student-to-computer ratio being 1.7 to 1. Mobile learning devices, maker spaces, coding labs, and more are evolving in schools in a variety of ways (Barack, 2015). Technology has become more cost-effective, more interactive, and easier to use; it is no longer a novel "luxury" but rather a constant part of our society.

In these technology-rich environments, teacher candidates are increasingly required to utilize technology efficiently and developing these skills during the internship experience is essential to later translating them to their roles as new teachers (Gray, Thomas, & Lewis, 2010). Project Tomorrow (2012) found that teacher candidates identified observing a college professor model the use of instructional technology as one of the most effective ways to learn. Using this same premise, it is important that candidates see mentor teachers model the effective use of technology in their PDS placements as well. The Council for the Accreditation of Educator Preparation (CAEP; 2017) outlines the need for candidates to have technology-rich experiences, both in their program as well as specifically during internship. By preparing future teachers to effectively integrate technology with a focus on learning, they will be able to better meet the needs of the diverse learners in their classrooms.

Future Ready, the National Education Technology Plan (2016), speaks to the power of technology to help teachers become more collaborative and engage in learning in and out of the classroom. Teachers can connect with other educators across their districts and around the globe. By utilizing technology to support PDS partnerships, stronger connections between school-based and university-based faculty can be developed. There is no doubt that technology integration and teacher preparation now go hand in hand. However, the questions for those of those of us working in the trenches of teacher preparation is: How can technology be used to strengthen our existing partnerships and how can we make certain that we adequately prepare that our preservice teachers for technology-rich learning environments?

The number of emerging technologies that can be used to support PDS partnerships and experiences is growing and the purpose of this special issue is to present a collection of scholarly work which includes a discussion of these various technologies that broaden and support the continuum of clinical practices within teacher preparation programs. While the focus of this special issue is technology, the issues raised in each of the articles are relevant to anyone involved in teacher preparation, both at the school and university levels. In many instances, technology provides a fresh approach to addressing common issues in PDS partnership work. As the expectations for technology use in P-12 classrooms increase, internship experiences in PDSs have become an even more critical part of their skill development. This makes dialogue about the use of technology within PDS imperative to keep pace with this area of educational change.

In the first article, Kruff, McQuitty, and Piper tell the story of one district's journey to make revisions and improvements that emphasize technology and its impact on in-service teacher development and the preparation of pre-service teachers. This innovative learning center model capitalizes on district-based technology initiatives by bringing PDS interns into the fold,

teaching them to integrate technology and grow professionally alongside in-service teachers who are also growing in their development of technology integration and student-centered pedagogy.

In the second article, using cognitive apprenticeships as a theoretical framework, Heath challenges the conventions of typical observations that occur in PDS schools by offering an example of how technology can both enhance and scaffold these experiences. While early, field-based experiences are essential for preservice teachers, Heath reminds us that these don't have to be sedentary activities but that the instructor and observers can take a more active role through use of technology.

In the third article, Damjanovic and her team at the University of South Florida use technology to create new opportunities within traditional pedagogic documentation that supports the development of various stakeholders in the teaching and learning process. In this case, the technology was used to support the professional development of various stakeholder groups with the cohesive partnership between the university and the preschool program providing an ideal backdrop for this new tool.

In the fourth article, Cruzado-Guerrero, Alba-Martinez, and Mogge promote the use of technology and Universal Design for Learning (UDL) to facilitate projects that respond to the growing diversity in PDS schools by sharing an example of how universities can provide instructional support. Cruzado-Guerrero et al.'s explanation of their work serves as an important reminder of how universities and schools can support one another through innovative approaches to professional development which incorporate technology and promote the principles of UDL.

The final two articles contained in this special issue offer an exciting look at the potential future of teacher preparation, clinical curriculum, and university-school partnerships. Technology has the potential to transform our work and both Dieker et al. and Schmidt et al. show us descriptive and attainable examples of this. In this issue, Dieker and the team at the University of Central Florida extend their research on teaching simulations, challenging us to consider new methods of offering professional development and preparing all teachers. This technology also opens the door to new ways of thinking about a clinical curriculum.

We invited Schmidt and colleagues to discuss ways to make distance supervision accessible to more schools and programs and discuss the promising implications of this practice, because it helps to address many of the relevant issues that teacher preparation programs face. They offer distance supervision as a viable option for university programs that are seeking creative but still efficacious ways to support preservice teachers placed in PDS schools and introduce us to the concept in a way that even those new to the approach can easily understand.

The number of emerging technologies available to support PDS partnerships and experiences are growing and so too, is the demand for preservice and in-service teachers and university faculty to integrate these tools meaningfully into their instruction. In an effort to foster scholarly discourse in this area, we have called on authors in teacher preparation, instructional technology, and affiliated PDS work to submit manuscripts that detailed research, suggested novel concepts, and described innovative practices that address their use of technology toward

these efforts. Our hope is that this collection of scholarship advances the professional conversation throughout the PDS network to include technology integration and the preparedness of all of our partnership groups to embark on the next phase of 21st century classrooms.

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