

SUPPORTING TEACHER EDUCATION EFFORTS THROUGH LARGE-SCALE ONLINE PROFESSIONAL DEVELOPMENT

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Abstract

With so many educators needing either initial preparation or ongoing professional development to build and sustain expertise in their discipline, online professional development arises as a viable, effective, and timely vehicle for teacher training. Online learning technologies have the potential to transform the professional development of teachers; penetrate cultural, discipline, and other barriers; bring educators together to learn, share successes and challenges; and co-construct and transfer learning. This paper presents examples of success and challenges associated with a large-scale US statewide online teacher professional development community. It also makes the case for implementing a systematic approach to investigating the effectiveness of online teacher professional development on educators, their instruction, and student achievement, through ongoing assessment and responsive evaluation.

Introduction

The purpose of this paper is to address the use of technology to support and facilitate change in teacher education through online learning. In particular, this paper will address research from an eight-year-long large-scale statewide online professional development program for pre-K–12 grade educators. The Florida Online Reading Professional Development (FOR-PD) has been a large-scale US statewide online professional development project designed to impact pre-K–12 teachers’ knowledge about reading research and effective instruction. The author is the project’s principal investigator, an associate professor of reading education at the University of Central Florida (UCF). This paper provides information about supporting and transforming teacher knowledge and instruction about reading through online professional development. This paper also proposes that online professional development should be viewed as a viable and effective means of bringing about positive change in teacher professional growth. Lastly, this paper will also highlight successes and challenges associated with a situated large-scale online teacher professional development community and trends and issues for the future of online teacher professional development.

Online Teacher Professional Development

In an era marked by massive federal emphases on educational accountability in US schools, the education and professional development of teachers has been receiving unprecedented attention and has been viewed as the catalyst for student achievement and educational improvement. Research shows that collaboration between teachers can be a powerful tool for professional development and a key contributor to school improvement by providing “opportunities for adults across a school system to learn and think together about how to improve their practice in ways that lead to improved student achievement” (Annenberg Institute for School Reform, 2004, p. 2). Gary Sykes stated that “the professional development of K–12 teachers is the most serious unsolved problem for policy and practice in American education today” (1996, p. 465). According to Killeen, Monk, and Pilecki (2002), school districts spend the equivalent of \$200 per student on professional development.

Online professional development (OPD) can help teachers learn about using new technologies to grow professionally and teach students how to learn with these technologies. Not just a flexible and convenient medium for the delivery and development of content, OPD is instead a transformative medium for academic dialogue, academic exploration, independent, and collaborative learning. When done well it has the capability of transforming teachers’ learning, instructional practices, and student achievement.

Inherent challenges with OPD include teachers’ perceptions of how learning happens online, perceptions of technology and professional development, and of how and where learning can take place. In addition, teachers’ knowledge of online technologies, access to technologies, and support also present obstacles to OPD. Online teacher professional development provides a different paradigm for learning individually and collaboratively. Online learning promotes more accountability and also makes one’s work and thinking more visible and accessible by others. Both traditional and online teacher professional development projects lack evidence and research on their effectiveness on teacher, student, and school success. As states are investing substantial funds to meet the need of keeping teachers’ knowledge current in new and expanding ways, the need increases to research and effectively evaluate these methods in ways that can contribute to their success and improvement. Furthermore little is currently known about best practices for OPD design and implementation (Dede, 2006; Whitehouse, Breit, McCloskey, Ketelhut, & Dede, 2006).

The Case of a Statewide Large-scale Online Teacher Professional Development Project

One way to support the training of teachers on a large scale is by providing access to high-quality professional development using an online medium. Courses provided online are the quickest growing form of teacher training (Seal, 2003). Now, more than ever, OPD can meet the professional needs of educators due to its flexibility, accessibility, and affordability. The flexibility of online teacher

professional development can enable schools, districts, and states to tailor material to meet their individual needs.

In the area of literacy, in the US, there is national need for developing and supporting educators' knowledge, research, and instruction. Part of the answer to the problem of meeting the needs of a growing number of struggling readers lies in focusing more effectively on developing primary through secondary teachers' expertise about teaching reading effectively (Snow, 2002). Research shows that historically few teachers have received adequate knowledge and preparation in teaching reading comprehension, especially at the middle and high school levels. As a result, it is evident that high-quality ongoing professional development efforts are crucial to the success of systemic and standards-based reform initiatives (Snow, Griffin, & Burns, 2005). The change needed to systematically alter the way we go about reading and teacher professional development raises many important questions.

Florida Online Reading Professional Development (FOR-PD), Florida's first large-scale statewide OPD project, has served as one avenue to meet the reading professional development needs of Florida educators. FOR-PD functioned as a delivery mechanism for improving teaching methods in pre-K–12 reading instruction. Funded by the Florida Department of Education, FOR-PD was one of the leading projects of its kind (Kleiman, 2004). This online course was designed to enable pre-K–12 teachers to keep abreast with emerging teaching standards, current scientifically based research, best instructional practices, and the ever-changing literacy needs of an increasingly diverse group of preK–12 students. Completion rates ranged from 80–90% for a 14-week fully online sustained (and demanding) professional development that was offered for free to all certified Florida educators.

From January 2003 through August 2010, FOR-PD serviced 44,344 pre-K–12 Florida educators. FOR-PD provided services to Florida's educators through all 67 Florida school districts, 7 state universities, and 6 community colleges. The mission of the FOR-PD project was to: (a) support the Florida Department of Education (FLDOE) in its statewide implementation of a reading professional development system using online delivery; (b) serve as a model for reading professional development online delivery; (c) translate scientifically based research into action, provide support, empower teachers to use innovative, creative, and effective strategies to help all children learn proficiently; (d) increase teachers' knowledge about reading; and (e) improve curriculum, reading instruction, and student learning.

Successes of a Statewide Large-scale Online Teacher Professional Development Project

For the purpose of this paper, the author will present core successes associated with the development, monitoring, and sustainability of large-scale online teacher professional development communities. Successes reflected in this large-scale

online community lie in the following areas: (a) developing quality professional development experiences; (b) developing teachers' digital age skills; (c) professional collaborations; (d) professional content knowledge about reading and instruction; (e) a model for ongoing improvement; and (f) impact on educators' knowledge and skills for teaching.

Quality Online Professional Development Experiences

Online courses are not only convenient and socially rewarding; they are also valuable in that they expose teachers to the many resources available through technology. They can also provide an opportunity for teachers to learn skills in how to use technology to enhance learning themselves. In an online professional learning community, a group of individuals communicate online and share common interests, goals, knowledge, challenges, and ideas. These communications contribute to the improvement of the knowledge of each participant in the community. In the FOR-PD teacher learning community, educators learned more about scientifically-based reading research and instruction as they worked together for 14 weeks. They also learned more about other instructional models various teachers used across the state. They exchanged information, resources, lesson plans, and thus, created a supportive expert virtual network. The FOR-PD online medium allowed educators free access to quality content about reading research and instruction and acted as a vehicle for ongoing teacher professional growth.

A successful online teacher professional community requires quality facilitation and support. FOR-PD provided a targeted, multi-layered system of support to facilitators and participants. Facilitators underwent a specific application process and were selected on the basis of professional qualifications in literacy. Upon selection, FOR-PD developed a seven-week online training course to best prepare them to facilitate online. The project sustained the community of facilitators via asynchronous and synchronous ongoing discussions, through peer mentoring, ongoing professional development online courses, frequent online chats, a monthly e-newsletter, reports on participant progress, and by providing facilitators with expert technology and literacy support.

FOR-PD participants were also supported by facilitators, the Technology Help Desk (day, evening, and weekend telephone and online support services), online chats, a monthly e-newsletter, reports on participant progress, weekly reminders about course content and ways to collaborate with other educators in the course, several layers of course-related support on assignments and tasks, and by literacy expert support. Developing and supporting a successful online teacher professional learning community requires planning, resources, monitoring, and time.

Developing Teachers' Digital Age Skills

The US National Education Technology Plan included a recommendation that school districts and individual schools work to “Ensure that every teacher has the opportunity to take online learning courses” (USDOE, Office of Postsecondary Education, 2005, p. 15). FOR-PD has served as one such avenue to meet this recommendation on a large scale. Experiencing a well-developed online literacy course, like FOR-PD, can help teachers relate better to the needs of a new age of digitally-native students.

To understand the importance of giving teachers an opportunity to participate in online learning and collaboration one only needs a glance at the growth of in the demand for online courses and computer use in K–12 schools. For example, the Sloan Consortium’s first ever nation-wide survey of online learning in elementary and secondary education, K–12 online learning *A Survey of US School District Administrators* (Allen & Seeman, 2007), found that two in three school districts had one or more students enrolled in either a fully online or a blended course conducted during the 2005–2006 school year. The new study also estimated that 1,300,000 US K–12 students were engaged in online courses in 2007–2008, which had doubled in just two years.

Through participation in FOR-PD teachers learned more about how to use technology to access, share, create, and disseminate information with other teachers. In addition, they also learned about how to use technology to support their instruction and the literacy needs of their students. Participants and facilitators experimented with multiple tools for synchronous communications, content-specific resources, animation, grading, e-mailing students, digital storytelling, audio and video tools, and many web-based graphics and systems for organizing information.

Professional Collaborations

Members of online learning communities share common interests and benefit from peer-to-peer communication in which they share knowledge and information. Educators in particular are in need of community building as teaching often tends to be an isolating profession. Many teachers in traditional professional development efforts (district or school based) do not have time to develop bonds and networks with other educators. Online professional development awards teachers the opportunity to elicit and sustain professional collaborations over time.

FOR-PD served a wide demographic of teachers at all levels of experience, content areas, and grade levels. It has also been adopted and is offered as part of several graduate programs in seven Florida universities — it also allows for

professional collaborations to take place among educators who are pursuing advanced graduate degrees. This diversity allows for cross-disciplinary collaborations. For 14 weeks teachers exchanged ideas, lesson plans, and resources on research and instruction; several visited colleagues' classrooms (especially those who were in the same school; in some instances there were as many as 30 faculty from one school); others created chat groups and book clubs and also helped to keep each other accountable with their progress in the course. Many still continue to communicate with each other even after completing the professional development. FOR-PD followed up many educators to check on their progress and communities and continued to provide resources and support long after they completed the course. Teachers can learn from other excellent teachers. Online exchanges help to make instruction less ambiguous, provide opportunities for exchanges among teachers, and thereby create a stronger professional community.

Designing and Implementing a Large-scale Online Teacher Professional Learning Community

FOR-PD incorporated elements of effective OPD (e.g., Treacy, Kleiman, & Peterson, 2002) and maintained a cycle of continuous improvement in all areas of the project. Because the effect of OPD on teachers has not been well researched (e.g., Whitehouse et al., 2006), FOR-PD strived to assess its impact on its key audiences (i.e., teachers and their students; facilitators; all participants), knowledge about reading research and instruction, participants' attitudes and beliefs toward technology, and satisfaction of participants and all levels of collaborators (i.e., pre-K–12 educators, participating school districts, state universities, and colleges). A sustained record of success in teacher learning has been providing state funding for FOR-PD since 2003 in Florida. This funding has made it possible for school districts and educators to receive quality research-based training and ongoing support that will help them to make instructional decisions to improve the reading of all students in their classrooms (the program is offered free to all certified Florida educators).

The project was developed collaboratively with literacy and technology experts. To effectively design and maintain a large-scale online teacher professional development community requires financial support, expert support, in-house support, quality content, technology, resources, time, a mechanism for ongoing content and technology updates, and multiple voices that will help develop a common message. FOR-PD's participatory, data driven, and teacher-centered decision-making model has contributed to its ability to effectively meet the professional development needs of thousands of Florida teachers.

Communicating and Learning in an Online Medium

In the case of an online community, communication (with the facilitator and with each other) and participation (social and academic) are integral. Because the experiences of the members with communicating and learning in a virtual medium will vary, providing quality support (technological, facilitator) and models of how learners can effectively communicate and learn from one another is crucial. Without active communication (facilitator-learner and vice versa and learner-learner) and participation in discussions and other community activities, the learner cannot be a part of the community.

The shift from traditional classroom (face-to-face) education to computer-mediated distance learning presents serious challenges to facilitators and participants. Isolation has been seen as a major contributor to participant attrition (Morgan & Tam, 1999). One way FOR-PD helped to ensure online learners feel connected, was by encouraging community building and support among participants. To scaffold learning FOR-PD focused on encouraging learners to interact with the content, the course facilitator, and to reflect on their own learning and beliefs with themselves and with each other.

In a large-scale OPD, community there is opportunity for successful and less successful communities. FOR-PD placed much focus on the ongoing professional development of its facilitators and on the program assignments and requirements. Facilitators play a key role in encouraging and supporting open lines of communication with themselves and learners and among learners. FOR-PD participants freely shared disagreements with state policy about their professional development, mandates, and future plans in public forum; facilitators helped to create a safe online community — a space and a place where educators could discuss academic and non-academic topics.

Technology can also contribute to communication and learning challenges. In some cases, technology can exclude or discourage people from communicating as some tools can be complicated or unfamiliar to some, unavailable for a certain platform, and at times slow and cumbersome depending on geographic location. As a result, they can all cause the communication and learning processes to be less than ideal, and members who do not actively participate may drop out of the community. Quality assurance checks implemented at critical semester times help prevent participant attrition and contribute to improvements in communication and learning in the online community.

In online learning professional development, establishing the infrastructure for communications to take place in a positive, encouraging, supportive, and rewarding manner is foundational. Equally important is the monitoring, assessment, providing formative feedback and ongoing improvement to the content, to support the quality of learning that takes place in the online community.

Evaluating the Effectiveness of an Online Learning Community

Building and sustaining an effective online learning community involves assessment as the cornerstone. How do we know what kinds of experiences participants are having in the online community? In the case of FOR-PD, what were educators learning about literacy, learning online, and technology? Because of the size and the accountability level of this large-scale online teacher professional development community, assessment was a must; it involved a multi-faceted, ongoing and responsive process. FOR-PD was evaluated on its impact through web-based surveys with stakeholders, pre/post assessments of teacher knowledge, classroom observations and implementation surveys a semester after the completion of the program, a review of teacher reflections/coursework and course content, quizzes, web-based focus groups, and research that examined the impact of teacher knowledge gained at FOR-PD on instructional practice and student achievement.

Challenges with Evaluating Large-scale Online Professional Development

In order to meet multiple demands that are placed on OPD projects from diverse stakeholders, it is important to design and implement a model of ongoing formative and summative evaluation. Formative evaluations will provide information on how the program is being implemented and how it might be strengthened. Summative evaluations can be more expensive, especially if they are implementing an experimental or quasi-experimental design. Summative evaluations will provide information on the results the program is yielding. Our situated experiences showed that “planning with the end in mind,” meaning incorporating evaluation and developing a logic model at the onset of the professional development design, will help to navigate the direction of the large-scale project and ensure that the needs of its participants are met. It is important to identify the various stakeholders who will be interested in the evaluation of the project and what they will need to know. This will help the project and evaluation team to prioritize their assessment goals.

The project principal investigator developed the vision for the type of evaluation necessary for the FOR-PD project and worked closely with the evaluator to choose the evaluation type needed. One of the lessons learned from this large-scale online project was the need to be clear, honest, and proactive about what worked and what did not work with the participants, the project design, content, and implementation. Ongoing communication with the policymakers also helped to present project decisions and data on an ongoing basis. In a way, formative and summative evaluation provided the support necessary to make project decisions to first meet participants’ needs instead of our policymakers’ ones. In addition, the developed of a multi-layered and multi-year evaluation plan addressed separate project goals in different years. Project evaluation did not take place to satisfy marketing program evaluation requirements; it took place because the main

project goal was to implement a systematic approach that examined the impact of this model on teacher development and instructional practice. In addition, the team explored the impact of participating teachers on student and school success by examining the annual yearly progress of schools that had a large number of teachers participating in the FOR-PD project.

In summary, in order to best evaluate OPD and its impact on its audiences, one has to first develop a culture that supports ongoing program evaluation, communicate early and often with all who will be affected by the evaluation, and dedicate adequate time and finances to communicating with internal and external stakeholders at all phases of the evaluation. Large-scale OPD has inherent challenges and demands that warrant considerable investment of time and funding.

Future Trends

Online professional development projects continue to emerge as alternatives to traditional classroom-based, face-to-face, professional development. Still, OPD means a lot of things to different people. Some OPD are delivered as autonomous, independent experiences; others include an online facilitator, structured independent and collaborative experiences, and positive online learning communities. Many stakeholders view OPD as a quick, inexpensive, and convenient way to provide professional development to educators. Future trends include emerging models of technological advancements, development and access to high-quality OPD models (Dede et al., 2006), efforts to make teachers, administrators, and policy-makers aware of the benefits of OPD, and involving teachers involved in all stages of OPD (i.e., design, development, implementation, assessment, and ongoing evaluation), and teacher empowerment. Tomorrow's teachers will demand a greater degree of personalization and practicality in online learning and more networking software that will allow them to interact with others globally (Barab, Kling, & Gray, 2004; National Research Council, 2007). Further research is warranted to better understand the impact of OPD design features, content, and implementation on teachers' content knowledge, instructional practice, and especially, student achievement. We need to learn from successes and challenges of existing OPD, their design features, and ways of sustaining them and improving them. Lastly, we need to develop a body of knowledge on OPD that will help facilitate the promotion of distance learning as a core vehicle for teacher professional development (Whitehouse et al., 2006).

Conclusion

How could one provide quality professional development to over 43,000 pre-K–12 educators? The FOR-PD project helped build educators' knowledge about

research-based reading instruction for elementary and secondary grades. Large-scale OPD does not happen automatically or easily. The development, implementation, and monitoring of such a project required a multi-layered model of design, development, recruitment, training and ongoing facilitator professional development, facilitator mentoring, technology updates and research, formative and summative evaluation and quality assurance monitoring. In summary, factors that contributed to the success of this large-scale OPD include the following:

- vision for online professional development as an effective medium for teacher growth and capacity
- qualified development team and advisory board
- maximizing the positive experiences of participants with online professional development and minimizing the negative ones
- technology infrastructure and support
- quality, relevant content
- strategic development of online professional communities
- recruitment and certification of quality online facilitators
- ongoing formative and summative evaluation.

Teacher quality is the key contributing factor to student achievement (e.g., National Commission on Teaching & America's Future, 1997). Quality ongoing professional development contributes to teacher growth and success. There is a need for OPD that can meet today's educators' demanding schedules, that uses quality content and resources that are available to teachers from any place and any time, and that can deliver relevant, accessible that can support and transform their instruction to promote student success. Online professional development is demanding, comprehensive, it can be time consuming, and it requires much of the participant, facilitator, and project provider. It truly takes "a whole village" to develop and effectively implement quality large-scale online professional development.

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