A professional development framework for online teaching

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Abstract

The quality of online programs in higher education is strongly correlated with how the professional development approaches respond to the needs of online teachers. These approaches are critical in helping online teachers adopt online pedagogical practices and reconstruct their teacher persona in an online environment. This study proposes a nested professional development framework for online teaching. The proposed framework intends to recognize successful online teaching in higher education as an outcome of the interaction of support activities at teaching, community, and organization levels.

Keywords: professional development, online, online teaching, higher education

While the numbers of higher education faculty and students involved in online learning are on the rise, faculty members, who are critical to building capacity and quality for online education, still feel uneasy about the value of current online teaching and learning practices. According to a recent survey report, faculty members are concerned about the amount of time and effort put into teaching online, and the lack of support and incentives provided by the organizations (Seaman, 2009). These survey results suggest the need for a constructive dialogue about the support and quality of online teaching (Seaman, 2009). Faculty members who teach in higher education contexts play key roles in successful implementation of online learning. Support and professional development programs, therefore, are critical for helping faculty "[e]ngage in pedagogical problem solving and discovery about online teaching" within their disciplines (Kreber & Kanuka, 2006, p. 122).

Research in online teaching has identified areas and factors that contribute to the success of online courses. These include time invested on planning and organization of online courses (Major, 2010), efforts put into managing courses (Conceição, 2006; Lao & Gonzales, 2005), increased teaching presence (Anderson, Rourke, Garrison, & Archer, 2001; Gorsky & Blau, 2009) and increased social presence (Richardson & Swan, 2003; Thurmond, Wambach, Connors, & Frey, 2002). These factors were critical to students' satisfaction, perceived learning, and development of cognitive and social skills (Gorsky & Blau, 2009). Our previous research revealed seven exemplary practices that successful online teachers follow: (1) knowing and creating the course content; (2) designing and structuring the online course; (3) knowing the students; (4) enhancing teacher-student

relationships; (5) guiding student learning; (6) evaluating online courses; and (7) maintaining teacher presence. (Baran, Correia, & Thompson, 2013). Additionally, other attributes of successful online teachers include self-discipline, facilitation of individual and group learning, and prompt feedback to students (Dawley, 2007). Research has also investigated how faculty members transition from face-to-face to online teaching. During their transition faculty members adopt new roles and skills for online teaching (Conceição, 2006; Coppola, Hiltz, & Rotter, 2002; Major, 2010) and in the meantime reconsider and reconstruct their conceptions, attitudes, and beliefs about how they teach and how students learn within online environments. The ways faculty members adapt to online teaching and their new roles and skills define their successful transition to online teaching.

Previous systematic models of technology-enhanced teaching and learning have been proposed (e.g., Ertmer, 1999; 2005; Kopcha, 2010, Inan & Lowther, 2010). For instance, Ertmer (1999) identified both external barriers (e.g., equipment, time, training and support) and internal barriers (e.g., teachers' underlying beliefs about teaching and learning) for teachers integrating technology into their curricula. Ertmer explored the relationship between these two types of barriers and explained strategies for rising above the challenges that teachers face when integrating technology in the classroom. Ertmer (2005) also recognized teachers' pedagogical beliefs as critical to technology integration. She defines teachers' beliefs as "teachers' educational beliefs about teaching and learning…and the beliefs they have about how technology enables them to translate those beliefs into classroom practice" (p. 28).

Inan and Lowther (2009) discussed how teachers' individual characteristics and perceptions of environment factors influence technology integration. Findings from this study show that school environment has a strong influence on teachers' computer proficiency, plus their belief in and readiness for technology integration. More recently, Kopcha (2010) presented a system-based mentoring model of technology integration. In this model the mentor plays a critical role in the establishment of a teacher-led community of practice. The mentor provides "teachers with just-in-time support while they integrate technology into lessons they are actually teaching" (Kopcha, 2010, p. 177).

In regard to online education, Feist (2003), while investigating the types of professional development that met online instructors' needs, found that instructors preferred activities that: (1) they could put immediately to use on a current project; (2) fit into their schedules; (3) included follow-up procedures; (4) were in sync with their learning schedules; (5) were centered around curricula; (6) came with an accessible support person; and (7) were directed by the program chair or unit leader.

The proposed professional development framework for online teaching was conceptualized with research that is primarily conducted in higher education settings. This is in contrast to some other models of technology-enhanced teaching and learning that address K-12 settings. This model focuses exclusively on online education rather than on technology integration in its broader sense.

Within the scope of the proposed framework, successful online teaching is considered to be the result of complex interplay among personal, pedagogical, contextual, and organizational factors within higher education institutions. These factors also contribute to faculty members' successful transition to online teaching. Therefore, by recognizing the importance of supporting faculty for online teaching at various levels, this paper integrates previous research results and literature into a holistic professional development framework for online teaching (See Figure 1). It is "holistic" in the sense that it emphasizes both the importance of the whole and the interconnectedness of its parts. We also believe that an entire culture shift will be needed in some organizations in order for them to offer the appropriate support that faculty members need to successfully move into an online teaching and learning environment. Concomitantly, it is important to consider the needs of all (primary and secondary) stakeholders (Kopcha, 2010).

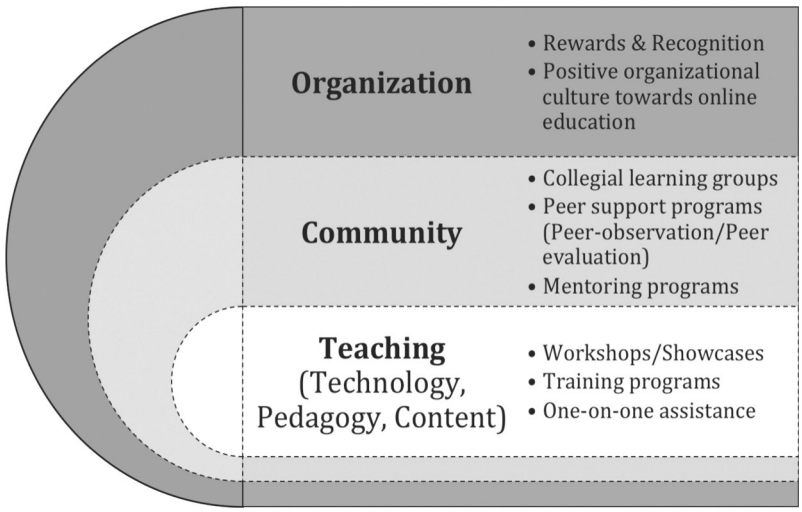

Figure 1. Professional development framework for online teaching

Components of the Professional Development Framework for Online Teaching

The proposed framework intends to recognize successful online teaching in higher education as an outcome of the interaction of supports at three different levels: teaching, community, and organization. Its purpose is to present online faculty, university administrators, and program coordinators – key decision-makers in higher education – with a support framework that can guide the design, development, and sustainability of faculty support and professional development programs. The framework considers support at various levels as the critical factor in faculty members' acceptance, motivation, and participation in online teaching.

Support at the teaching level

Sandholtz and Reilly (2004) are adamant about the risks for technology integration when teachers are expected to master technical skills at the expense of focusing on curriculum development, evaluating learning materials, and creating successful learning opportunities for their students. Supporting online teachers at the teaching level is critical to the creation of transformative learning experiences for instructors who find themselves empowered and challenged in a new teaching environment (Major, 2010). Teachers may feel uncertain, uneasy, and unprepared for the challenges of teaching online, lacking the tools and conditions they rely on to establish their expertise and teacher persona in the traditional classroom (Major, 2010). Support and development programs, therefore, are essential in helping teachers engage in the processes of pedagogical inquiry and problem solving as they reflect on the interactions among content, online technologies, and pedagogical methods within their unique teaching contexts.

Technology support. Technology support is a key factor in nurturing successful online teaching practices. Faculty members, especially during the transition phase, need ongoing help when deciding which technology platforms to use, structuring the course in the online learning environment, making sure technologies work, troubleshooting when problems occur, helping students with their technology issues, and setting up the technological infrastructure. While some faculty members may feel comfortable utilizing a single online learning platform, others may wish for options to explore and adopt. Therefore, providing faculty members with technical support that is appropriate for their own level of technical proficiency, and guiding them as they explore new tools, are both crucial for enhancing excellence in online teaching.

While setting up technology structures and providing training on using the technologies are both critical to increasing faculty members' familiarity with online tools, technology-focused professional development and support approaches may be limited in helping faculty transform their pedagogical methods into the online environment.

Pedagogical support. Previous studies indicate that faculty members are more concerned about the design and development of their online courses than with skills required to use technology tools (Taylor & McQuiggan, 2008). Moreover, treating technology separate from pedagogy and content within a particular online teaching setting may not be enough to equip faculty with the knowledge and skills necessary for effective online teaching. Therefore, pedagogical support is another essential factor in faculty members' successful transition to online teaching. Knowing what online technologies exist for particular pedagogical tasks (e.g., enhancing collaboration, fostering reflection), and how online pedagogies address the needs of the students enables faculty members to make design and teaching decisions in their teaching contexts. Faculty members need help not only with technology and pedagogy, but also with understanding the opportunities afforded by online technologies for representing course content. Therefore, support related to the transformation of faculty members' *content* for the online environment is another critical factor in promoting successful online teaching practices.

Design and development support. The design of online learning experiences requires an understanding of the complex relationships and interactions between several elements of a particular teaching context. To design and teach their online courses, faculty members generally consult with local or university-wide support centers to get help from instructional support specialists, instructional designers, teaching assistants, library specialists, and/or audio-video producers (Lee, 2001). These units commonly conduct *workshops* or *showcases* about features of content management platforms and other technological tools, plus tasks such as building a syllabus, editing video, designing online content, and evaluating courses. More formal *training programs* vary from mandatory, intensive courses to voluntary training modules, both of which are often created and implemented internally (Taylor & McQuiggan, 2008). Organizations may opt to

provide faculty with reference manuals on how to teach online (e.g., Correia & Yusop, 2010; Poe & Stassen, 2002; and Lowenthal, Thomas, Thai & Yuhnke, 2009). Training and workshop methods seem to be helpful in equipping faculty members with necessary initial pedagogical and technical skills.

While through these workshops faculty members may initially build confidence and develop interest in online teaching methods, workshops may be inadequate for answering individual needs. Therefore, support and professional development approaches should not treat online teaching as a context-free, "one-size-fits-all" solution (Rovai & Downey, 2009). Instead, an individual faculty member's prior learning and teaching experiences, attitudes, teaching methods, visions, and working styles need to be addressed within customized experiences. Faculty members need to be provided with *one-on-one assistance* with course design, as well as with scaffolded learning opportunities that are customized for their specific needs and learning styles (Tallent-Runnels, et al., 2006).

Support at the community level

Online teaching can be an intellectually and socially isolated activity for faculty members if they are not provided with necessary community support. The time and effort invested in teaching online may challenge faculty in reserving time for sustained and in-depth collaborative investigation of their online teaching pedagogies and student learning. While faculty may interact frequently with support personnel (e.g., instructional designers, program coordinators, and/or technology coordinators) and receive assistance with transforming their content and pedagogies for the online classroom, they may not find opportunities to interact with other faculty who also teach online to exchange ideas, advice and "war stories" about online teaching. Limited interaction among faculty members about online teaching hardly cultivates collegiality or shared direction. In investigating factors impacting the adoption of web-based learning and teaching, Samarawickrema and Stacey (2007) found that "collegial learning groups were strong enabling factors that contributed to experimentations with technology, cross-fertilization of ideas, problem solving, and continuing dialogues on the topic" (p. 325). Similarly, recent research also indicated that faculty members who belong to both formal and organized social networks and *collegial learning groups* as well as informal groups adapt better to the online teaching environment (Baran, Correia, & Thompson, 2013).

Communities of practice. Faculty members, if given the opportunity to participate in communities of practice, can transform their teaching by socially constructing their knowledge and practices (King, 2002). In order to nurture a shared vision among faculty members who teach online, a collaborative professional community needs to be promoted. Incorporating collaborative work groups, community building, mentoring, and group discussions into professional development programs -- and sustaining their continuity -- is crucial for online faculty support and development. Creating an online community of practice with a special focus on peer support has the potential to extend learning communities outside of formal professional development programs and sustain the conversation on effective online teaching environments (Rovai & Downey, 2009). By participating in these learning communities, faculty members may also engage in "psychological and emotional support to relieve some of the frustrations they experience with distance education" (Lee, 2001, p. 39). Communities of practice can be created by initiating teamwork and facilitating collaboration between instructional designers, media specialists, librarians, and technology specialists with faculty members (Howell, et al., 2004). Faculty members value sharing successful stories and best practices, reviewing and evaluating online courses, and building a community focusing on online education issues (Howell, et al., 2004). Building community around online teaching can be further fostered through annual conferences and meetings in which different stakeholders share ideas about online education.

Peer support. The structure of peer support programs varies depending on the organizational culture and teachers' needs. Common practices include pairing an experienced online teacher with a novice, or less experienced teacher, and allowing them build a mentoring relationship to nurture and share their best practices (Kopcha, 2009; Milheim, 2001; Restauri, 2004; Taylor & McQuiggan, 2008). Peer observation, peer evaluation, and formal and informal networks can help teachers adapt to the online teaching environment more easily (Samarawickrema & Stacey, 2007).

Peer observation is another method that has been integrated into faculty professional development programs as a model of professional learning. By observing peers in a learning environment, faculty can provide one another with feedback and suggestions on teaching methods as well as share successes, drawbacks, and chal-

lenges to teaching approaches. Observing and constructively critiquing other online instructors' courses helps faculty members visualize their own online teaching practices and develop their strategies for online teaching. Creating communities with a special focus on *peer observation* and *peer feedback* has the potential to extend learning communities beyond formal professional development programs and sustain the conversation about effective online teaching environments (Rovai & Downey, 2009).

Support at the organizational level

Support and recognition at the level of the organization is often pointed out as a critical motivational factor for faculty members' participation, commitment, and sustained interest in online teaching (Cook, Ley, Crawford, & Warner, 2009). When offering online courses for the very first time, faculty members may experience increased workload as they spend extra time adapting to new work habits, learning new technologies, and transitioning pedagogies (Samarawickrema & Stacey, 2007). Therefore, a reward system to recognize extra effort and commitment to online education should be part of faculty members' careers. *Rewards* can range from leadership recognition/value towards tenure and promotion, financial stipends, release of time for course development to public acknowledgement (Chen & Chen, 2006; Maguire, 2005; Samarawickrema & Stacey, 2007). When faculty members see online learning as academically respected and recognized within their college or university, they are more confident and motivated to teach online and create high-quality courses.

Many external factors can hinder or promote technology integration, such as changes in school policy and leadership, introduction of new technology, new curriculum, and changes in staffing (Kopcha, 2009). Being aware of these factors and navigating the constraints and opportunities that they pose are important to the successful implementation of technology in the classroom and online teaching and learning.

Organizational culture. The presence of a technology infrastructure may not be enough to motivate faculty to teach online effectively. Organizational culture has frequently been identified as a critical success factor for educational renewal with technology (Davis, 2009) and technology integration (Kopcha, 2009). An organizational culture that is positive about online education is another critical factor in supporting a successful transition to online teaching. Distance education "is fundamentally an academic issue, not a technological one. Although IT may be the stimulus or change agent, the essential matters are complex and will be the purview of academics" (Oblinger, Barone, & Hawkins, 2001, p. 15). If faculty members know that their organization's culture respects and rewards online teaching, and makes it accessible and flexible, their motivation to teach online increases.

The quality of online programs is strongly correlated with how professional development approaches respond to faculty members' needs. These needs should be addressed from the orientation phase, when faculty are being prepared to teach online, through the implementation and evaluation phases. They need to be equipped with knowledge of their school's culture, policies and procedures, the characteristics and needs of their online students, online pedagogies they can employ in their particular teaching contexts, the incentive system for quality work, and ways to develop a sense of collegial spirit among online teaching teachers (Rovai & Downey, 2009). Moreover, policies related to intellectual property and ownership need to be communicated in order to address concerns and potential problems with future teaching practices.

Concluding Thoughts and Implications

As shown in Figure 1, the proposed framework offers support to online faculty at the levels of teaching (including technology, pedagogy, and content) as well as at community and organization levels. We believe that the benefit of this framework resides in the nested positioning of these levels and their interconnectedness. The model clearly shows how community encompasses teaching and institutional support encompasses community. It was created specifically for online teaching in higher education settings, which makes it distinct from earlier models of technology integration. Despite this distinction, the nested professional development framework for online teaching is in fact consistent with research on the use of technology in schools. For example, Zhao and Frank (2003) argue that the factors affecting the use of technology in schools are extensive, but are treated in isolation from one other. They also contend that few frameworks in the existing literature take into consideration the "dynamic nature of the technology adoption process" (p. 811), and as a result they propose the ecological framework as a way to analyze technology use in schools.

For online teaching to be integrated and embraced by faculty members, higher education institutions should provide various opportunities for faculty to find the support and ongoing help as and when required. For example, one barrier to preparing faculty to teach online is time. Due to their busy schedules, faculty members may be reluctant to spend time on professional development activities. Faculty members may prefer learning experiences that are variable and informal, and supported with "flexible scheduling, short sessions, and one-on-one support for anytime, anywhere professional development" (Taylor & McQuiggan, 2008, p. 35). Hence, key support center personnel need to be readily available and accessible to faculty members whenever they need to ask questions and discuss issues.

Quality online education programs are created with committed faculty members, administrators, and staff who are motivated to apply new knowledge and skills to the online learning context (Li & Akins, 2005). In order to help online faculty engage in pedagogical inquiry, online professional support and development programs need to consider them as adult learners and professionals who are empowered to make decisions regarding online teaching (Baran, Correia, & Thompson, 2011). These faculty members are the key participants in reforming online learning, and their knowledge and involvement in decisions must be considered. By recognizing their critical role in successful online learning and bringing their voices to design decisions at different levels of support and development, schools will motivate and empower their faculty members to construct learner-centered, innovative online learning (Baran, Correia, & Thompson, 2013). It is through concurrent professional development and support efforts that quality in online teaching and learning can be achieved.

The approaches to online teacher preparation and support need to be redirected away from technology-centered programs, which treat technology as a separate entity to be learned and online teaching as an isolated role to be performed. What is needed instead is the creation of transformative learning experiences for faculty who will "engage in pedagogical problem-solving and discovery about online teaching" within their disciplines (Kreber & Kanuka, 2006, p. 122). Recognizing the importance of teacher support at teaching, community, and organizational levels, higher education institutions can apply similar approaches to the support and development of other personnel involved in online education. It is through simultaneous professional development and support efforts that quality in online teaching and learning can be achieved. This is in line with Davis' (2009) ecological perspective of educational renewal. By adopting an ecosystems perspective to education, one "recognizes that a variety of ecosystems interact in the global biosphere and that a micro ecosystem, such as a classroom, is nested within another ecosystem, the school, which is part of the nation's macro educational ecosystem" (p. 509). Davis explains that "the diversity of factors that impact a teacher's adoption of IT are envisioned in layers that frame perspectives of the classroom as nested within the school, local area, region, and the global biosphere of education" (p. 510).

This framework will help colleges and universities help their faculty transition into online environments by demonstrating a clear relationship between three critical areas: teaching, community and organization. Understanding this relationship will enable these higher education institutions to create professional development for online teaching that is relevant and meaningful, and that truly assists faculty members to transition successfully to online education. This framework clarifies how to provide better support in all critical areas.

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