

Faculty Development for Online Instruction in Higher Education

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Abstract

This paper presents a review of the literature about the current state of professional development for online instructors in U.S. institutions of higher education. Professional development requirements and experiences for instructors who create online courses vary widely among higher education institutions. Throughout the literature, many have proposed varied recommendations for overcoming identified barriers that threaten successful professional development programs. Factors investigated in this review included reasons for faculty professional development, challenges and barriers, best practices, essential elements, current practices and program models, and faculty perceptions.

Faculty Development for Online Instruction in Higher Education

Professional development for instructors who teach online exists in various formats, ranging from in-house workshops to online certification courses (such as those from the Online Learning Consortium or Quality Matters). Yet the majority of online instructors typically have received minimal training in pedagogy or instructional design (Ragan & Schroeder, 2014; Shelton & Saltsman, 2005). Many instructors attempt to teach online using the same methods and activities they have used in a traditional course (Shelton & Saltsman, 2005; Tobin, Mandernach, & Taylor, 2015). Many instructors perceive that institutions do not provide sufficient professional development for them as online educators (Herman, 2012, 2013). Not surprisingly, the reputation of online education has suffered as learners have experienced poorly designed and delivered online courses (Ragan & Schroeder, 2014). Ineffective online courses lead to decreases in student satisfaction, retention, and persistence (Elliott, Rhoades, Jackson, & Mandernach, 2015; Ragan & Schroeder, 2014).

Citing results from the 2010 Sloan-C survey report by Allen and Seaman, Herman (2012) explained that “training is available in 81% of institutions that offer online programs; most training takes the form of formal training courses and informal mentoring” (p. 91). While Herman saw this as an indication that institutions are placing value on faculty training, she also contended that the Sloan-C research study was too narrow. She argued that the “Literature on faculty development initiatives...provides a much more complete portrait of the variety of faculty development initiatives for online instruction, as well as some data on their overall effectiveness (Herman, 2012, p. 92). The purpose and objectives of this literature review are as follows, based on the published research literature:

- describe why online faculty professional development is important
- identify challenges and barriers to effective professional development
- identify best practices, strategies, and essential elements of comprehensive professional development
- describe current practices and program models of development
- describe faculty perceptions of professional development for online teaching

The Importance of Professional Development for Online Faculty

Continued Growth of Online Education

The number of fully online courses and programs in higher education increased significantly in the 1990s, coinciding with growth of internet access. Online education has continued to grow, and is currently a widely offered mode of course delivery across U.S. higher education institutions. The number of online courses and students continues to increase (Chang, Shen, & Liu, 2014; Hixon, Barczyk, Buckenmeyer, & Feldman, 2011; Marek, 2009; Ragan & Schroeder, 2014). As online courses and programs proliferate, more and more faculty are becoming involved with online education (Herman, 2012, 2013). Yet, sometimes faculty members are resistant to online teaching because it is unfamiliar or they have doubts about its effectiveness (Herman, 2012, 2013). As enrollments have continued to rise, accreditation agencies have been exerting pressure on institutions of higher education to assure high quality online programs through both assessment and faculty development (Herman, 2012, 2013; Ragan & Schroeder, 2014).

Faculty as Gatekeepers to Student Satisfaction and Success

The success of online learning, like any academic initiative, requires faculty acceptance and support (Esterhuizen, Blignaut, & Ellis, 2013; Ragan & Schroeder, 2014; Shelton & Saltsman, 2005). Faculty support is needed to affect institutional change (Shelton & Saltsman, 2005). Hardré (2012) also asserted that faculty members are the key to success at any institutional level, and has suggested that the reputation of community colleges, in particular, hinges on faculty training and development.

Faculty are one of the most valuable assets to higher education institutions (Palloff & Pratt, 2011; Ragan & Schroeder, 2014). Bigatel and Williams (2015) surveyed over 2,200 students in a Penn State Online Campus program. They asked about student perspectives on engagement levels and about instructor involvement in promoting engagement online. Results indicated that students felt more engaged by instructors who had participated in professional development about online teaching and engagement techniques. The results seem to indicate that professional development for effective online teaching is warranted, thus Bigatel and Williams concluded that institutions need to provide support for faculty growth and development. In a study of 191 non-profit institutions with active teaching and learning development units, Herman (2012) concluded that institutions who want quality online programs must invest in faculty development. Faculty who are aptly trained and supported as professionals are more likely to understand the nuances of online teaching and to deliver effective instruction. Through professional development, faculty can learn many skills related to technical tools, pedagogy, and communication strategies.

According to a review of the literature by Baran and Correia (2014), there is a direct correlation between online program quality and professional development for online faculty. They found that online instructor behaviors (e.g. course organization, teaching presence, and social presence) are critical to students' learning and satisfaction (p. 96). Ragan and Schroeder (2014), national experts in the online learning, agreed and stated that the investment of institutional resources in faculty development is positively correlated with student satisfaction and retention. In their recent book, *Evaluating Online Teaching: Implementing Best Practices*, Tobin et al. (2015) also recognized the positive relationship between teaching quality and student retention in online programs, but described the reason for the correlation as follows:

Unlike the captured audience we have on our campuses who might dismiss a single, poorly instructed class from that same instructor again, online learners are more likely to dismiss the entire institution altogether, knowing well that the next institution is just a click away. (p. 218)

Elliott et al. (2015) explained the same type correlation between professional development and course quality, but from a different perspective. Their analysis of online faculty development programming over the course of one year at a single institution revealed that there can be a negative effect on the classroom environment and decreased student satisfaction if faculty do not practice what they learn within their professional development experience. Professional development is a key component for faculty to be able to deliver instruction effectively (Bigatel & Williams, 2015; Elliott et al., 2015).

Gaps in Faculty Preparation for Online Teaching

Online teaching is different than traditional teaching (Hixon et al., 2011; Tobin et al., 2015). The role of the instructor in higher education has changed and has become more complex as communication modes have changed

(Chang et al., 2014). New competencies are necessary beyond what is required in traditional face-to-face teaching (Ragan, Bigatel, Kennan, & Dillon, 2012). Marek's review of current literature (2009) revealed that faculty need to be prepared for new tools and pedagogical shifts. Teaching online using the same techniques and methods as face-to-face does not work well (Shelton & Saltsman, 2005). Ragan and Schroeder (2014) explained that faculty teaching online may have gaps in their preparation due to misunderstanding the online medium and its challenges.

Many researchers have recognized that faculty teach the way they were taught (Esterhuizen et al., 2013; Hixon et al., 2011; Marek, 2009; Ragan & Schroeder, 2014; Shelton & Saltsman, 2005). Shelton and Saltsman (2005) accounted for this in *An Administrator's Guide to Online Education* by noting that faculty begin teaching online without having any direct experience teaching or learning online themselves. Ragan and Schroeder (2014) asserted that many instructors do not have a background in educational theory and practice from which to draw when teaching their courses. Online teaching requires a paradigm shift for faculty because new instructional strategies (Hixon et al., 2011) are needed in order to move from a teacher-centered (instructivist) approach to a more learner-centered (constructivist) style (Esterhuizen et al., 2013).

Rapid technological changes create an additional gap in faculty preparation and readiness to teach online. Faculty must be competent in the teaching tools used in order to enable students to develop to their fullest potential (Esterhuizen et al., 2013). In their book, *The Excellent Online Instructor: Strategies for Professional Development*, Palloff and Pratt (2011) have identified five "phases of online faculty development" (pp. 20-29): visitor, novice, apprentice, insider, and master. Each phase clearly indicates a progression in instructor preparation and ability to utilize technology in online instruction. Esterhuizen et al. (2013) contended that rapid changes in technology tend to outpace strategy and pedagogy, making sustainability of professional development programs difficult. Training at various levels, like those outlined by Palloff and Pratt, is needed. Vaill and Testori (2012) described a three-tiered faculty development program for Bay Path College that addresses the need for differentiated levels of training and support. In their model, instructors receive ongoing technical support from an instructional designer and other staff in the institutions Center for Distributed Learning.

Challenges and Barriers to Effective Professional Development Programs

Physical Limitations: Time, Space, and Resources

Elliott et al. (2015) claimed that not having time to participate is one of the greatest barriers that prevents faculty from engaging in professional development, and faculty are more likely to select asynchronous opportunities because of time constraints. Hardré's (2012) study about faculty motivation found that community college faculty are overwhelmed by their teaching loads and have no time for other activities, including professional development. The challenge of time is compounded by a prevalent perception among faculty that online teaching requires more time and effort than in-person teaching (Herman, 2012; Hixon et al., 2011; Ragan & Schroeder, 2014). Shelton and Saltsman (2005) recognized the time issue, but contend that time requirements for online versus face-to-face are about equal, just distributed differently. However, online teaching can take up to 10 to 15 percent more time than teaching face-to-face (Allen & Seaman, 2010; Lazarus, 2003). So perceived or actual increased time to teach online, as well as time to participate in training, are factors that contribute to faculty resistance to online teaching.

Physical location of instructors also presents a significant challenge to successful professional development programs. With the growth in online education and the affordances of technology, many institutions rely on part-time faculty members who may reside far from the host institution to deliver online courses (Elliott et al., 2015; Ragan & Schroeder, 2014). Ragan and Schroeder (2014) pointed out the need for local and online professional development opportunities in order to accommodate the location and schedule of faculty who live away from their institution's main campus.

There is a wide range of professional development program types, yet institutions must operate with limited financial and personnel resources (Elliott et al., 2015). When time and money to develop and deliver professional development are limited, institutions must strategically plan how they will support faculty development. According to Herman (2012, 2013), instructors may perceive that they are not given ample incentives to participate in online initiatives. This raises the question of whether or not instructors should be compensated financially or with release time for participating in professional development, which is another important issue for consideration. Marek (2009) drew attention to the fact that a lack of technology and/or instructional design support within an institution for faculty teaching online can lead to learned helplessness; as a result, instructors may give up. Time, money, and personnel are needed to effectively provide professional development, and lack of these critical resources will decrease the likelihood of effective online instruction.

Faculty Disinterest

Herman (2012, 2013) asserted that faculty are dissatisfied with the current professional development programs offered at their institutions. Faculty perceptions are critical to the success of a professional development and training program, so this poses a new challenge. Ragan and Schroeder (2014) suggested that mandated training is one way to ensure adequate participation. However, Hardré (2012) and Herman (2012) warned against mandated training. Herman argued that faculty will not accept it, and Hardré held the view that mandated training may be more harmful than helpful. Elliott et al. (2015) contended that instructors will only benefit from the professional development that they do attend and that lack of interest may be one factor in poor attendance. Therefore, professional development should be linked to faculty perceived needs and interests to foster motivation and avoid faculty resistance (Hardré, 2012).

Best Practice Strategies for Professional Development

The literature suggests a number of helpful recommendations to institutions for best practices in professional development programming. Esterhuizen et al.'s (2013) study considered faculty perceptions about technology enhanced learning in comparison to the views of an e-learning administrator. This strategy suggests, as do Palloff and Pratt (2011), that faculty members should be involved in deciding what professional development they need. Elliott et al. (2015) advised developers to consider best practices in online and adult education, including diversity among instructor backgrounds and experience in the design process. In order to ensure that programs will be of interest to faculty and to improve engagement, Elliott et al. also suggested careful consideration of both focus and format.

Faculty Involvement

Involving faculty in the nature and planning of their professional development is consistent with best practices in adult education and in online learning. Palloff and Pratt (2011) stated "Faculty need to be involved in determining what they learn and how they learn it" (p. 29). Researchers suggest several different models that institutions can follow to engage faculty with the process of professional development. Hixon et al. (2011) encouraged those responsible for faculty development to ask instructors for their suggestions when planning and to collect feedback from participants at each event. Likewise, Teräs and Herrington's model (2014) encouraged feedback between iterations of professional development. This approach provides an opportunity for rapid prototyping of a professional development intervention. Similarly, Tobin et al. (2015) suggested that the process of online course evaluations should elicit topics for future faculty training and development. Ragan and Schroeder (2014) advocated the establishment of communities of practice among faculty members and other online learning support experts. Palloff and Pratt also promoted the establishment of a community-oriented, collaborative approach. Marek (2009) proposed a model where both instructors and the institution share the responsibility for ensuring professional development.

The literature provides conflicting viewpoints regarding whether institutions should use individual faculty champions to lead online learning and professional development engagement among the faculty. Palloff and Pratt (2011) and Ragan and Schroeder (2014) supported faculty champions based on their experience as leaders in online learning. Ragan and Schroeder explained that faculty champions serve as a positive influence on professional development and also suggested enlisting the union or faculty senate to drive institutional change. These proponents believe that faculty champions can affect positive cultural change. In contrast, Marek (2009) warned against relying on faculty champions, citing fleeting and irregular progress, shifting outcomes, and an inability to scale the efforts up across the institution (p. 278).

Flexibility and Diversity

Professional development should be flexible (Bigatel & Williams, 2015). Hardré (2012) explained that self-determination theory (giving choice and freedom in work) applies to adult professionals. Herman (2012) maintained that institutions should allow instructors to choose their own training based on their interests and needs. An assumption that institutions should provide options at every level to meet the needs of individuals is central to Palloff and Pratt's (2005) five phases of professional development. Most successful professional development programs are flexible and allow self-paced scheduling (Elliott et al., 2015).

One benefit to creating a flexible system of professional development is the ability to accommodate a diverse faculty. Elliott et al. (2015) described the diversity of instructor backgrounds in terms of individuality as well as teaching experience. As previously noted, Ragan and Schroeder (2014) ascribed instructor misunderstandings about online learning to gaps in their professional preparation. Considering issues of diversity allows faculty developers to address an individual's beliefs about teaching and to contextualize professional development based on needs of the local faculty (Esterhuizen et al., 2013; Shelton & Saltsman, 2005).

Form and Focus

While maintaining flexibility of design, professional development programs should also consider issues related to both form and focus (Ragan & Schroeder, 2014). Palloff and Pratt (2011) suggested offering variety of times, topics, and formats to meet a wide variety of instructor needs. Ragan et al. (2012) concurred and recommended that topics, duration and timing of courses, workload demand, and delivery format be carefully considered when designing faculty professional development. Marek (2009) recommended the addition of discipline-specific topics, as applicable, to professional development programs for online instructors.

Whatever form of professional development is provided, Elliott et al. (2015) suggested that individualized training and follow-up be available after other programs. Support for individuals should be a component of the institution's plan for ongoing development and should also provide program and discipline specific support (Marek, 2009). To avoid exhausting staff and financial resources, Riedinger and Rosenberg (2006) moved much of their faculty development training online. They described the evolution of their professional development program which ultimately led to an online teaching certification course. Their shift from face-to-face workshops to an online mode of training freed up their support staff's time to provide more follow-up, personalized support.

There are several examples of online or blended online and face-to-face professional development programs like that of Riedinger and Rosenberg (2006). In their model, they included blended and online elements by holding a face-to-face kickoff session before transitioning participants to an online course. Then they followed-up with one-to-one support. This example is consistent with a point made by Elliott et al. (2014) that professional development should emulate the environment and technologies that instructors will ultimately teach with. Similarly, Lane (2013) established an online certificate program to address the need for pedagogically-driven, technology enhanced professional development model. Many of these "certificates in online teaching" have become available, both as for-credit courses, and as continuing education. For example, see the Online Learning Consortium (<http://onlinelearningconsortium.org/learn/teaching-certificates/>), Penn State World Campus (http://wcfd.psu.edu/programs/certificate_ot/), and Walden University (<https://www.waldenu.edu/certificates/online-teaching-in-higher-education-post-masters>).

Emulating the environment of online teaching affords an opportunity to provide interactive, hands-on, active learning for faculty members (Elliott et al., 2015). Kinuthia (2005) and Herman (2012) both recommended well-defined, task-centered programs with immediate application of concepts. Esterhuizen et al. (2013) agreed and asserted that professional development should provide real life interaction so that "faculty should experience the affordances of e-learning personally" (p. 62) because their attitudes, competence, and access to technology will affect how it is used. For these reasons, Teräs and Herrington (2014) strategically included authentic e-learning elements into the design of their international online teacher development model.

While providing opportunities for realistic, active learning experiences, Tobin et al. (2015) pointed out that it is important to allow for faculty risk-taking. They reasoned that instructors need the freedom and permission to experiment with innovative pedagogies and technologies as a matter of personal growth and for research of the field. Esterhuizen, et al. (2013) also asserted that professional development should allow for experimentation and new approaches, and they suggested that institutions should provide facilities where instructors can develop interests and skills.

In some situations, it may be preferable to provide professional development external to the institution. Hardré (2012) suggested that it may be preferable to do so in place of on-site professional development. For instance, Hardré noted that engagement in professional development outside of their institution may provide a more well-rounded experience for instructors. External professional development options will likely cover more topics than online teaching, such as research or mindfulness practices. Marek (2009) also incorporated this idea of external professional development as one of the layers of support in her proposed professional development model.

Other Best Practices

The published scholarly literature provides additional best practice recommendations to support effective professional development of online instructors. Institutions should reward faculty members for their participation. Possible rewards include course release time, financial stipends, and recognition or title (Herman, 2013; Marek, 2009). Within the programs, Ragan and Schroeder (2014) mentioned the importance of directly addressing the differences between online and face-to-face formats. Tobin et al. (2015) extended this notion by adding that information about how online teaching evaluation works should also be explicitly covered. They further suggested that evaluations should elicit topics for future training and development. Tobin et al. also placed importance on communication of institutional value for good teaching to faculty. Shelton and Saltsman (2005) recommended providing concrete examples and sample materials. They also recommended that institutions provide instructional design assistance, intellectual property information, and assistance with copyright, technology use, and media creation (Shelton & Saltsman, 2005).

Essential Elements of a Comprehensive Professional Development Program

Pedagogy First, Technology Second

The literature overwhelmingly supports the position that technical training alone is not sufficient for professional development of online instructors (Chang et al., 2014; Marek, 2009; Ragan & Schroeder, 2014; Riedinger & Rosenberg, 2006; Shelton & Saltsman, 2005; Teräs & Herrington, 2014). Lane (2013) argued that the majority of instruction provided to online instructors is technology-focused, particularly on the learning management system (LMS). Emphasizing technology over pedagogy is an inadequate approach (Hixon et al., 2011; Lane, 2013). Recognizing this dilemma, Lane created a more comprehensive approach to faculty development which encompassed both pedagogy and technology in an open online format. She surveyed participants from the pilot and found that the many participants were pleased with their personal achievements in both technology and pedagogy.

Chang et al. (2014) conducted a survey of one-third of the online instructors in Taiwan about their perspectives on the role as an online instructor and related teaching practices. Statistical analysis of the results showed that the instructors believed content expertise and instructional design to be more important than technology use. They found this to be consistent among faculty members who had completed varying degrees of training, however, they found a significant difference among their practices. The results suggested the need for a comprehensive faculty training.

Riedinger and Rosenberg's (2006) online certification course model was developed in part to address their faculty's need for strategic training that covered both technology and pedagogy. They identified several challenges to their existing attempts at professional development. One primary concern was the diversity of faculty skill levels and pedagogical knowledge. Their approach to faculty training was to provide support in both areas so that faculty members would be empowered to integrate technology into their course design and instruction effectively.

The best online teaching is a combination of technology skill and course design, so the focus of professional development should be first on pedagogy, then on technology (Chang et al., 2014; Esterhuizen et al., 2013). Professional development should extend beyond basic uses of technology to include strategies and suggested use cases (Kinuthia, 2005). In Kinuthia's expert opinion, training should establish a connection between content, methods, and technology.

Online Student Engagement

Specific pedagogies related to student engagement and motivation in an online environment are important elements of faculty development. According to Bigatel and Williams (2015), "student engagement is a strong predictor of student persistence and degree completion. As a result, training instructors in strategies to encourage student engagement is a valid goal for any faculty development program" (Discussion section, para. 1). Bigatel and Williams studied student perceptions about how well faculty engaged them in their courses. They found that faculty who engage in professional development were better at engaging their students online than faculty who had not participated in professional development. In their review of the literature, Bigatel and Williams pointed out the growing population of adult online learners and the need for faculty to shift from a teacher-centered approach to a student-centered approach and to design courses that promote student interaction and participation. Chang et al.

(2014) also concluded that teaching strategies for student engagement is one of the greatest needs within faculty professional development.

Suggested Focus Areas

Results of various studies provide an array of findings about which components of professional development programs are most important. To summarize each one briefly will afford an opportunity to highlight similarities as well as differences. Bigatel and Williams (2015) recommended four core elements: 1) professional, 2) instructional, 3) leadership, and 4) organizational (e.g. time management). Baran and Correia (2014) presented a concomitant component framework with three elements: the organization (institutional culture), community (peer-to-peer engagement), and teaching (including technology and pedagogy). Chang et al. (2014) listed instructional design, critical reflection, and facilitation as their critical components whereas Esterhuizen et al. (2013) proposed that content, pedagogy, and technology are the three core components of successful professional development. Kinuthia's (2005) suggestions included course development, instructional techniques, and assessment. According to Hardré (2012), professional development should acknowledge instructor needs regarding teaching and scholarship, but should also meet their personal needs and promote overall well-being.

Some researchers speak more broadly about the focus of professional development in terms of online learning. For instance, Ragan et al. (2012) defined several online teaching competencies, and Hixon, et al. (2011) mentioned instructional design and improvement of course quality. Similarly, Shelton and Saltsman (2005) recommended coverage of all aspects of the online program, course development, and instruction. Ragan and Schroeder (2014) described competency based techniques of professional development and also articulated ten specific dimensions of faculty preparation: teaching presence, changing classroom dynamics, time and workload management, new learner characteristics, teaching via technology, quality assurance of online teaching, accessibility for the disabled, legalities (e.g. ownership, privacy, and intellectual copyright), course construction processes, and the complexity of online learning systems.

From these examples, it is clear that instruction (i.e. teaching) is the most commonly suggested component for professional development. Course design and development (i.e. instructional design) is the second most mentioned area of focus. Several studies mentioned other teaching and design tasks, such as assessment, instructor presence, accessibility, and copyright. It may be assumed that these types of components are inherent within some professional development models. The level of specificity of teaching and design topics will likely vary from one program to another and from institution to institution based on the unique context of each environment. This variation is important to note, because it exemplifies the need for explicit training about institutional and program frameworks. Finally, the research above suggests that technology training, while important, should be provided within the context of teaching skills.

Current Practices in Online Faculty Professional Development

Types of Programs

The types of professional development offered vary among higher education institutions. As previously mentioned, there are limited resources available to support and maintain in-house professional development and training for online faculty members. Nonetheless, the literature reveals a fairly extensive list of types of professional development programs. Elliott et al. (2015) stated that face-to-face, optional events are prevalent within higher education. More formalized formats include workshops, panel discussions, showcases, training programs, seminars, teleconferences, mini courses, and directed publications (e.g. junior faculty survival guides) (Bigatel & Williams, 2015; Baran & Correia, 2014; Elliott et al., 2015). Hixon et al. (2011) pointed out that training courses can be conducted by internal or external personnel. Informal, more individualized format types include one-to-one assistance, brown-bag lunches, meetings, e-learning or self-paced online resources, and question-and-answer sessions (Bigatel & Williams, 2015; Baran & Correia, 2014; Elliott et al., 2015). Mentoring is a type of professional development that can be formal or informally practiced (Hixon et al., 2011). Shelton and Saltsman (2005) proposed that formal mentoring should be established to support inexperienced faculty.

Herman (2012) spoke of many of the aforementioned types of professional development activities and categorized 25 different types into six categories: institutionally-supported self-teaching, peer mentoring, collaborative course design, workshops, online training, and quality assurance evaluation programs. According to Herman's study, the most frequently offered type was self-help resources and technical service and support. Herman also found consultation with an instructional designer was a commonly reported type of professional development.

Professional Development Models Within the Literature

Research studies provide rich examples of various models for professional development. There are six examples listed below and then explained in the following paragraphs.

1. Riedinger and Rosenberg (2006) presented a blended professional development program that includes a face-to-face introduction followed by online instruction. This model leads to certification for online teaching.
2. Ragan et al. (2012) proposed a model from Penn State University that includes twelve courses, spans four levels, and is by far the most detailed and comprehensive.
3. Marek's (2009) proposed multi-layer support system is perhaps the next most comprehensive model of the six, which suggests support for faculty in their program, from the institution, and by continuing education.
4. Vaill and Testori's model development (2012) began with consideration of existing models and resulted in a three-tiered approach that included initial training, peer mentoring, and ongoing support.
5. Lane (2013) proposed an open online program that also leads to certification for online teachers.
6. Teräs and Herrington (2014) developed a rapid-prototyping model for professional development.

Riedinger and Rosenberg (2006) offered a blended model of professional development that leads to certification. In order to meet the diversity of instructor needs, interests, and abilities, they moved their program online following best practices in course design. They also established a mentoring program to follow the online training. The format of the training began with an initial two and one-half hour face-to-face workshop, followed by online courses with one-to-one support and assistance available from the facilitators. Their end goal was to train and empower faculty and avoid cookie-cutter courses to create effective student learning. Their article provides results in the form of lessons learned. On the positive side, they saw an overwhelming response to participate, saw collegial camaraderie development among some faculty, and witnessed some course improvements made as a result of training. On the negative side, faculty quickly adopted a "student attitude" and demonstrated behaviors such as submitting assignments late, whining, and complaining about the workload. Surprisingly, there were also some instances of "flaming" and other inappropriate discussion posts. Some faculty expressed resistance to group work assigned in the course. Lessons learned also indicated a need to provide models and information about student-centered learning and to provide clarity and repetition in directions.

Marek's (2009) study looked into the issue of faculty support for online teaching within the discipline of library and information science (LIS) at a master's degree level. Guiding questions involved finding examples and best practices for faculty support structures in online course design, delivery, and content. Marek asserted that a systematic approach to faculty development was needed and proposed a model with a multi-layer support system "culture of support" model (p. 287). In the model, program specific supports are in the center circle and include incentives, content specific assistance, and peer mentoring and support. In the middle layer surrounding program supports is the institution support piece. This middle layer includes technology workshops and training, reward systems, policy development, instructional design support, etc. Finally, the outermost layer pertains to external continuing education, e.g. conferences, college courses, or commercial training.

The design of Penn State's World Campus could be used as a model for online faculty development. Ragan et al. (2012) presented the results of two studies conducted at Penn State University. The first study identified online teaching competencies; the second discussed the impact of their findings on the design and development of faculty professional development for online teaching. Results of the studies led to the development of a comprehensive, integrated professional development program entitled Online Learning curriculum. The Online Learning curriculum series includes twelve courses, covers four levels, and is delivered in a broad range of formats and frequencies. The series leads to a certificate for online teaching.

In their paper, Vaill and Testori (2012) described one college's approach to faculty development for online course creation and instruction. They considered various types of professional development programs, such as the models available from Walden, Purdue, and the University of Tennessee at Knoxville. They describe a three-tiered training program that consists of initial training, peer mentoring, and ongoing support from an instructional designer. Results of their reflective study showed that 106 total faculty received training from 2007-2011. Eighty-four percent of instructors who completed post-training surveys reported feeling more prepared to teach online following the orientation component.

Lane (2013) proposed an open online "Program for Online Teaching Certificate Class" (para. 5) in which instructors could learn how to use open tools on the web, such as blogs and social media, to develop professional identities online while bolstering their ability to create a more student-centric learning environment. In Lane's study,

a limited online class was first offered in the 2010-2011 academic year, followed by a full 24-week open online class in 2011-2012. There were about 90 participants enrolled the second year. There was no predetermined group for the study because the majority of enrollees were full-time college faculty members; however, some participants were from outside of higher education. About one-third of the participants completed the course.

Lane surveyed participants in several topical areas and at various times throughout the year. Survey questions addressed their learning experience, opinion of the class design, experience in the class community, and confidence in selecting tools that would fulfill their teaching goals. Overall results showed that participants had positive perceptions and experiences, and completers reported satisfaction with the learning experience in terms of meeting their personal goals. However, there was mixed feedback about seeing the course as a model for pedagogy in an online environment. Some challenges emerged with the design of mentoring and synchronous sessions due to drop out and limited participation. Nevertheless, participants who completed the course felt better prepared to teach from their pedagogical perspective and to choose technologies to support them, which was a major goal of the study.

Teräs and Herrington (2014) reported on the creation of a professional development intervention they created using a rapid prototyping design process. The researchers wanted to design an intervention to address the need for support and professional development resources for higher education teachers. The intervention included three learning modules, and the program ran over three semesters. The designers took feedback from each previous module into account to address concerns and challenges in the design of the next module. Challenges identified after module one included confusion about authentic tasks, challenges with online collaboration, insufficient facilitation, and an unclear assessment process. The designers implemented improvements in some areas, but not all. The design incorporated meaningful professional development needs, including pedagogy and application in teaching, not just technology training workshops.

Faculty Perceptions Regarding Professional Development for Online Teaching

Effect of Experience on Perception and Need

Herman (2012, 2013) found that faculty who have not taught online perceive online instruction as less effective than traditional instruction, but that this perspective changes when they get online teaching experience. Because faculty needs and experiences change over time, initiatives should also change in response (Elliott et al., 2015; Palloff & Pratt, 2011). There is a need for comprehensive practice-based training at the onset of online course adoption (Esterhuizen, et al., 2013). Intermediate to advanced training opportunities are also needed to support faculty who have already mastered the basics (Palloff & Pratt, 2011). Chang et al. (2014) showed that instructors who had completed varying levels of faculty training prior to their survey initially held the same perceptions about online instructor roles and practices. However, instructors in this study reported changes (improvements) in their actual teaching practices as they received more training.

Hixon et al. (2011) offered a unique perspective about current faculty development needs. They proposed that most early adopters are already trained, so there is presently a need to understand how later adopters are different in order to meet their needs for professional development. Hixon et al. generally viewed these late-comers as more reluctant, less confident of their technical skills, and less confident in value of technology in education. Rather than assuming such a divide exists between early adopters and late adopters, Palloff and Pratt (2011) focused on the progressive stages that instructors work through as they gain exposure to and experience in teaching online. Palloff and Pratt expertly stated that “faculty at each stage of development may have very different training needs” (p. 20).

What Faculty Value in Professional Development

Esterhuizen et al. (2013) reported that online instructors tend to focus on daily tasks, in contrast to online program administrators who focus on strategy and planning. Regarding professional development and training, instructors value things relevant to their needs as teachers and that they can actively apply in teaching, things that foster personal growth or self-improvement, and networking with colleagues (Elliott et al., 2015). Hixon et al. (2011) reported that instructors valued relevant and easy to find information, and feeling connected to mentors and other participants in professional development. Hixon et al. also stated that later adopters, in particular, valued more structure and support.

To accommodate instructor preferences when designing professional development, Palloff and Pratt (2011) made two recommendations to institutions. First, they suggested including self-driven tools for faculty to take

control of their own professional development. Second, they endorsed mentoring and peer collaboration. These recommendations are consistent with Marek's (2009) model wherein faculty share responsibility for their professional development.

Marek's research (2009) revealed that the most requested types of online instructor support included course release, formal courses, workshop training, and IT infrastructure. Marek also found that the most used types of support were informal peer support, conferences, and formal university training. Kinuthia's (2005) study of professional development needs in historically Black colleges and universities (HCBUs) revealed that the least desired formats were self-teaching, books, audio and video tapes, and formal courses. Faculty in Kinuthia's study preferred workshops and individual meetings, followed by web-based and informal help.

Motivators

Hardré's (2012) study utilized motivation theory to explore the reasons faculty pursue and engage in professional development, as well as their motivation for basic research and teaching research. She found that faculty are most often externally motivated to do professional development, even though they are more intrinsically motivated to teach. This is an important consideration when designing professional development, because it points to the need to connect the event to teaching tasks in order to draw on those internal motivators. Yet external motivators alone (e.g. title, promotion, financial reward, or release time) may be perceived by some faculty members as insufficient because of their motivation to help students is often stronger than these external rewards (Herman, 2013). That is not to say that external motivators are not needed. Financial rewards and assistance learning new technologies can be used to incentivize instructors to engage in professional development (Ragan & Schroeder, 2014).

Kinuthia's (2005) study showed that the top motivators for instructors to attend professional development included release time, professional growth, hardware and software allocations, financial stipends, and impact on promotion and tenure. Kinuthia also noted that peer pressure among faculty is a non-motivator. Finally, the ability to connect to other faculty and/or mentors in a meaningful way may provide motivation to develop professional skills (Hixon et al., 2011).

Conclusion

It is important for institutions of higher education to support faculty members who teach online by providing professional development and on-going support. Faculty are the gatekeepers to student success and satisfaction, yet many instructors lack the pedagogical and technical skills to teach effectively online. Online instructors have diverse training and support needs, making the development of a one-size-fit all approach implausible and ineffective. When designing a faculty development program, it is critical that the faculty be involved so that their unique needs are met.

Essential elements of comprehensive professional development include a strong emphasis on instructional design, facilitation of student learning, and student-oriented pedagogical strategies. While technical training and support is needed, it should be secondary to instructional training. Institutions should also clearly communicate the cultural and programmatic design and expectations to their faculty. It is considered best practice to design professional development programs that are flexible and diverse in topic, scope, sequence, and venue.

This paper provides summaries of six distinct professional development models within the literature. Model designs ranged from one-time only online teaching courses to fully developed programs that include multiple courses. Some programs lead to institutional certification for online teaching, which may influence faculty motivation to participate. In each model and throughout this review of the literature, an attempt was made to consider faculty perceptions about professional development for online teaching. Professional development for faculty who teach and develop online courses must meet their needs. Institutions should provide rewards and incentives whenever possible to encourage instructor participation in professional development. But even when external motivators are not available, the professional development should be clearly aligned with achieving effective and engaging online instruction.

References

- Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Retrieved from: <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>
- Baran, E., & Correia, A. P. (2014). A professional development framework for online teaching. *Tech Trends: Linking Research and Practice to Improve Learning*, 58(5), 96-102.
- Bigatel, P. & Williams, V. (2015). Measuring student engagement in an online program. *Online Journal of Distance Learning Administration*, 18(2). Retrieved from: http://www.westga.edu/~distance/ojdla/summer182/bigatel_williams182.html
- Chang, C., Shen, H.Y., Liu, E. Z. (2014). University faculty's perspectives on the roles of e-instructors and their online instruction practice. *International Review of Research in Open and Distance Learning*, 15(3), 72-92.
- Elliott, M., Rhoades, N., Jackson, C. M., & Mandernach, B. J. (2015). Professional development: Designing initiatives to meet the needs of online faculty. *Journal of Educators Online*, 12(1), 160-188.
- Esterhuizen, H. D., Blignaut, S., & Ellis, S. (2013). Looking out and looking in: Exploring a case of faculty perceptions during E-learning staff development. *International Review of Research in Open & Distance Learning*, 14(3), 59-80.
- Hardré, P. L. (2012). Community college faculty motivation for basic research, teaching research, and professional development. *Community College Journal of Research and Practice*, 36(8), 539-561. doi:10.1080/10668920902973362
- Herman, J. H. (2012). Faculty development programs: The frequency and variety of professional development programs available to online instructors. *Journal of Asynchronous Learning Networks*, 16(5), 87-106.
- Herman, J. H. (2013). Faculty incentives for online course design, delivery, and professional development. *Innovative Higher Education*, 38(5), 397-410. doi:10.1007/s10755-012-9248-6
- Hixon, E., Barczyk, C., Buckenmeyer, J., Feldman, L. (2011). Mentoring university faculty to become high quality online educators: A program evaluation. *Online Journal of Distance Learning Administration*, 14(5), n.p. Retrieved from http://www.westga.edu/~distance/ojdla/winter144/hixon_Barczyk_Buckenmeyer_feldman144.html
- Kinuthia, W. (2005). Planning faculty development for successful implementation of web-based instruction. *Campus - Wide Information Systems*, 22(4), 189-200.
- Lane, L. M. (2013). An open, online class to prepare faculty to teach online. *Journal of Educators Online*, 10(1). n.p.
- Lazarus, B. D. (2003). Teaching courses online: How much time does it take? *Journal of Asynchronous Learning Networks*, 7(3), 47-54. Retrieved from http://onlinelearningconsortium.org/jaln_full_issue/volume-7-issue-3-september-2003/
- Marek, K. (2009). Learning to teach online: Creating a culture of support for faculty. *Journal of Education for Library and Information Science*, 50(4), 275-292.
- Palloff, R. M., & Pratt, K. (2011). *The excellent online instructor: Strategies for professional development*. San Francisco, CA: Jossey-Bass.
- Ragan, L. C., Bigatel, P. M., Kennan, S. S., & Dillon, J. M. (2012). From research to practice: Towards the development of an integrated and comprehensive faculty development program. *Journal of Asynchronous Learning Networks*, 16(5), 71-86.
- Ragan, L. C., & Schroeder, R. (2014). Supporting faculty success in online learning: Requirements for individual and institutional leadership. In M. G. Moore (Ed.), *Leading the e-learning transformation of higher education: Meeting the challenges of technology and distance education* (pp. 108-131). Sterling, VA: Stylus Publishing.
- Riedinger, B., & Rosenberg, P. (2006). Uniting technology and pedagogy: The evolution of an online teaching certification course. *EDUCAUSE Quarterly*, 29(1), 32-39.
- Shelton, K., & Saltsman, G. (2005). *An administrator's guide to online education*. Greenwich, CT: Information Age Publishing.
- Teräs, H., & Herrington, J. (2014). Neither the frying pan nor the fire: In search of a balanced authentic e-learning design through an educational design research process. *International Review of Research in Open & Distance Learning*, 15(2), 232-253.
- Tobin, T. J., Mandernach, J., & Taylor, A. H. (2015). Evaluating online teaching: Implementing best practices. San Francisco, CA: Jossey-Bass.
- Vaill, A. L., & Testori, P. A. (2012). Orientation, mentoring and ongoing support: A three-tiered approach to online faculty development. *Journal of Asynchronous Learning Networks*, 16(2), 111-119.