



Professional development for online faculty: instructors' perspectives on cultivating technical, pedagogical and content knowledge in a distance program

Sharla Berry¹

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Abstract

In this qualitative case study, the researcher draws on interviews with 13 faculty in an online doctoral program to find out how professional development offerings strengthened distance instructors' technical, pedagogical and content knowledge. Findings suggest that guided practice sessions in the virtual classroom strengthened newer faculty members' technical knowledge. Biweekly meetings turned into a community of practice where newer and more experienced faculty could build content knowledge. Faculty in the distance program desired more professional development in the area of online pedagogy.

Keywords Professional development · Online learning · Community of practice

Introduction

Enrollment in higher education has declined consistently over the past 4 years (National Student Clearing House, 2016). However, there is one area of growth—online education (Allen et al. 2016). Despite the growth of this particular sector of higher education, faculty have experienced some challenges in teaching online. In Seaman's (2009) survey of 10,000 faculty at 69 institutions, 85% said it takes more effort to develop online courses than face-to-face courses. Professional development can support faculty in addressing the challenges of online course development (Meyer and Murrell, 2014). However, many online faculty are highly unsatisfied with their professional development experiences (Bolliger et al. 2014). Kang (2012) found that faculty often deemed professional development irrelevant and disconnected to their teaching goals and needs.

✉ Sharla Berry
seberry@callutheran.edu

¹ California Lutheran University, Thousand Oaks, USA

Lack of training for online faculty has dangerous implications for online students. Faculty that are not prepared are less likely to help students engage with peers, collaborate on learning activities and cultivate a sense of community (Berry 2017). As engagement, collaboration and community are all vital to retention in online programs (Gaytan 2015; Thomas et al. 2014), it is critical that researchers learn more about the types of support for teaching that online faculty find beneficial. In this qualitative case study, I draw on interviews with 13 faculty to explore their perceptions of the types of professional development that are effective in helping them develop technical, pedagogical and content knowledge.

Literature review

In the seminal piece “Seven Principles of Good Practice”, Chickering and Gamson (1987) write that effective faculty do the following: (1) encourage contacts between students and faculty; (2) develop reciprocity and cooperation among students; (3) use active learning techniques; (4) give prompt feedback; (5) emphasize time on task; (6) communicate high expectations; and (7) respect diverse talents and ways of learning. In a piece about implementing the seven principles in distance learning environments, Chickering and Ehrmann (1996) argue that professional development is necessary for effective teaching in these contexts. As technology-enhanced learning environments grow to be increasingly more complex, Chickering and Ehrmann (1996) hypothesis remains true (Mohr and Shelton 2017).

Caffarella and Zinn (1999) write that there are different forms of professional development—self-directed, organizational and formal. Self-directed professional development refers to knowledge that a faculty member independently seeks and cultivates, such as reading books. Organizational professional development refers to institutionally developed training efforts. Formal professional development refers to external training and often occurs via workshops, seminars and professional organizations.

There are many factors that can influence the adoption of professional development (Porter et al. 2014). At the institutional level, factors like money, time and policy can impact the way universities and departments utilize professional development (Elliott et al. 2015). At the individual level, support from colleagues and personal schedules impact how faculty make use of professional development (Kang 2012). Regardless of the factors that enable and impede one’s adoption of professional development, research suggests that professional development may improve faculty effectiveness (Meyer and Murrell 2014).

The experience of teaching online is vastly different than teaching in-person (Elliott et al. 2015). Online faculty have unique needs for professional development, including training on how to operate learning management systems and other web-based tools and pedagogical training on the best practices for teaching online learners (Chen et al. 2017; McGee et al. 2017; Pagliari et al. 2009). To teach in a virtual environment, faculty need skills in instruction, course facilitation, delivery tools, course management, design and content (Bigatel et al. 2012; Grabowski et al. 2016). Institutions have implemented a range of professional development offerings

to support faculty in distance programs. Herman (2012) identified 25 types of professional development available to online faculty, including self-teaching, peer mentoring, collaborative course design and synchronous online training. Not all of these options are used equally by institutions. In a study of 821 institutions, Herman (2012) found that while nearly 90% of institutions offered a website with resources and some form of tech support, only 53% offered synchronous training and 32% had formal mentoring programs. Online faculty also engage in peer-knowledge sharing to develop their teaching skills. Distance instructors may develop formal or informal communities of practice, networks where people come together to pursue professional learning goals (Lave and Wenger 1998). Work in a community of practice can help online faculty feel more connected to their peers (Eib and Miller 2006; Mohr and Shelton 2017).

Despite the variation in online training options, there are few accounts of how online instructors perceive training that seeks to develop these competencies (Bigatel et al. 2012; Grabowski et al. 2016). Without these studies, researchers cannot determine the impact of professional development on teaching and learning (Meyer 2014). Extant research suggests that faculty do not engage with all of the professional development resources equally. Pagliari et al. (2009) found that faculty do not always attend online trainings when they are available. Faculty may opt out of training for a variety of reasons, including the limited scope, absence of resources regarding pedagogy, and paucity of resources for promoting active learning and student engagement inside the virtual classroom (Bolliger and Wasilik 2009; Wingo et al. 2017). In a phenomenological study of seven faculty in an online program, Kang (2012) similarly found that faculty felt that while the technical information offered in professional development was helpful, the training was ultimately deemed “useless”, as it was not linked to their teaching needs. Without effective training, faculty will be limited in their ability to teach and support distance learners (Grabowski et al. 2016).

Research questions

This study was driven by the following research questions:

1. What types of professional development exist in one online doctoral program?
2. How do the various forms of professional development that faculty in one online program have access to strengthen their technical, pedagogical and content knowledge?

Theoretical framework

Koehler and Mishra's (2009) technology, pedagogy, and content knowledge (TPACK) framework is used to explore professional development in an online program. The TPACK framework is appropriate for this study because it helps researchers consider the different types of knowledge that educators in online contexts need to teach effectively.

Technical knowledge refers to knowledge of how to use technology-related mediums. Pedagogical knowledge refers to “deep knowledge about the processes and practices or methods of teaching and learning” (Koehler and Mishra 2009, p. 4). Pedagogical knowledge includes many things, including “understanding how students learn, general classroom management skills, lesson planning, and student assessment” (Koehler and Mishra 2009, p. 4). Content knowledge refers to knowledge within the particular discipline or subject area.

Koehler and Mishra (2009) assert that educators in technically enhanced environments must understand how technology, pedagogy and content knowledge work together to help foster student learning. Herman (2012) asserts that quality professional development can help build instructors’ technical, pedagogical and content knowledge. The TPACK framework is useful for helping researchers consider the different competencies and knowledge areas that inform high-quality online instruction.

Methods

As online programs expand, it is important to consider the perspectives of online faculty (Hodges et al. 2013). The researcher elected to use the qualitative approach in creating this study because qualitative methods are well suited to capture unique and underrepresented perspectives (Merriam 2009). The particular qualitative method employed is case study. Case study methods are appropriate for descriptive analyses of unique contexts (Merriam 2009). The unit of analysis in this case study is one online doctoral program. Data collection and analysis occurred in Summer 2017.

Setting

The study took place at an online doctorate program at a large R1 institution which will be referred to by the pseudonym “University of the West.” According to the Carnegie classification, an R1 doctoral university is one that awards at least 20 research/scholarship doctoral degrees annually. An R1 university is an institution that is engaged in the highest research activity as classified by Carnegie. The site was selected because it is an exemplar in the field of online learning. The institution has been developing well-ranked, large, fully online masters and doctoral programs since 2009. Data was collected from faculty in an education doctorate program. The program is in its’ 3rd year. In the Spring semester, there were approximately 300 students in the program. Faculty had on average 7 years of teaching experience in higher education and four and one-half years of experience teaching online.

Data sources

Data from this study was drawn from 45-min semi-structured interviews with thirteen faculty in the online doctoral program at the University of the West. The study was open to all full-time and part-time faculty who had taught in the Spring

semester of the program. Initially, the researcher attempted to randomly sample faculty in the online program. However, the researcher found that “cold-calling” was not effective in enrolling participants in the study. Faculty were more likely to join the study at the behest of colleagues. Therefore, the researcher contacted faculty who led course sections and asked them to send out emails to colleagues encouraging participation. The researcher then sent a follow-up email to each faculty member asking them to participate. Interviews stopped when theoretical saturation was reached. At the conclusion of the project, six full-time and seven part-time faculty were interviewed. These faculty represent 25% of the faculty who taught courses in the Spring semester of the program. Permission from the Institutional Review Board to do human subjects research was obtained before beginning the study.

Data collection and analysis

The data for this paper grew out of a larger study on faculty experiences teaching in online programs. A set of questions in the semi-structured interview were devoted to professional development. The researcher asked participants to identify each type of professional development they received as faculty in the online program and then to reflect on their experiences with each resource. Faculty were then asked to reflect on how each professional development offering helped them develop technical, pedagogical and content knowledge. Faculty were encouraged to elaborate on the strengths and limitations of each form of professional development. Interviews were conducted via phone and recorded using GoogleVoice. Audio files were sent to a transcription service and were transcribed.

The researcher used Braun and Clarke's (2006) six-step approach for thematic analysis. In the first step, the researcher familiarizes herself with the data. To do this, the researcher printed out the transcripts and took notes on them. The purpose of this was to thoroughly understand the data set. During this process, the researcher noted any preliminary codes that emerged from data. During phase two the researcher generates the initial codes (Braun and Clarke 2006). This process of code mapping is useful for organizing qualitative analyses (Patton 1990). Given the theoretical framework, coding was a deductive and inductive process. The researcher began with codes from the TPACK framework (Koehler and Mishra 2009), making note of how professional development did or did not strengthen technical, pedagogical or content knowledge for each participant. The researcher also coded data based on the six types of professional development offered in the online program, to see if there were any themes that emerged based on the type of professional development. The researcher also developed a coding scheme based on codes that emerged from the data, and then applied these codes to the analysis. Examples of such codes include a broad overview of technology, on-demand support, and a community of inquiry.

To generate the codes, the researcher engaged in constant comparative analysis (Glaser and Strauss 1967). According to Anfara et al. (2002), this strategy is helpful in generating themes and theories that hold across the data set. Additionally,

comparing interviews to each other in the initial code and theme development stages allows the researcher to identify conditions among the participants (Miles and Huberman 1994). For example, one condition that emerged was the similarity in perspective between faculty with over 5 years of teaching experience online and faculty with less than 5 years' experience, a trend that is explored in the findings. In this stage of comparative analysis, the researcher sought similarities and differences between adjuncts and full-time faculty, and lead faculty and the rest of the instructors.

The third step in Braun and Clarke's (2006) approach is to identify themes. To identify themes, the researcher made connections between the codes. For example, the researcher began to see a connection between pedagogical knowledge and a sense of ambiguity around online teaching. Thus the theme of a pedagogical knowledge—a grey area, emerged. Once themes were identified, the researcher created a coding scheme that clearly defined each theme. Themes were also consolidated or separated as appropriate.

During the fourth and fifth phases, the researcher reviews and defines the themes (Braun and Clarke 2006). One part of the review phase is to recode the data and to make sure that the themes fit with the data set. Nvivo software was used to assist with this process. Using the software allowed the researcher to see which themes held across each interview and were thus representative of the data set. This process of coding and recoding is helpful in ensuring dependability in qualitative research (Anfara et al. 2002). In the final analysis, the researcher reported on themes that held across interviews and removed outliers.

In the sixth phase, the researcher develops the report. To do this, the researcher organized the paper around the TPACK framework (Koehler and Mishra 2009). Themes from the study were organized to explore how different professional development offerings developed technical, pedagogical and content knowledge. To protect privacy, the researcher used pseudonyms for the institution and the participants.

Findings

Six types of professional development were available to faculty in the online program at the University of the West—asynchronous materials, webinars, guided practice sessions in the virtual classroom with an instructional designer, 24-h technical support phone line sessions, in-class technical support and weekly faculty meetings. A description of each type of professional development is provided below.

The sections that follow explore instructors' perceptions on the ways in which professional development in the online doctoral program at the University of the West strengthened their technical, pedagogical and content knowledge.

Technical knowledge: a broad overview and support on-demand

The online program at the University of the West began in 2009. At the time of the study, there were approximately 300 students in the program. According to faculty, professional development offerings have grown significantly since the program was first established. Whereas founding faculty only had access to asynchronous and generic resources for professional development, newer faculty (those with five or fewer years of teaching experience) received all of the six forms outlined in Table 1. Newer faculty were pleased with the resources they received, particularly the synchronous guided practice sessions with technical support inside of the virtual classroom. These sessions helped them enhance their technical proficiency with regard to navigating the online system. Jose, an adjunct faculty member who had been teaching in the online program less than a year, describes the sessions this way.

There was a staff person from tech support who was the host of the session, kind of like the course instructor. The new faculty were essentially the students in the class. The instructor would present materials verbally and on a PowerPoint and show us how to do things on the screen. There was a question and answer period. People would ask questions and the instructor would show us how to use the virtual class. The first session was very basic. The others expanded to more advanced topics. They were very helpful. I would've been in bad shape if I didn't go through those.

As Jose's quote illustrates, the practice training sessions allowed faculty to gain answers to specific questions about how to manipulate the virtual classroom in a low stakes environment. This knowledge was beneficial to faculty members regardless of their technical proficiency. Hannah, an adjunct faculty member with 6 years of teaching experience in online programs described her experience that way.

I'm comfortable learning new platforms. I think every school I've worked at practically has had its own platform, so I'm pretty comfortable with a degree of discomfort. The LMS part doesn't throw me off. However, working in the virtual classroom at the University of the West was a bit of a mind warp at first. I wasn't used to all of the features. There's video, there's chat... The chaos of it was a little bit overwhelming at first. The training helped me grow more accustomed to working with it. My anxiety went down around some of the basics like moving students into break out rooms and some of the other logistics. Now I'm very comfortable.

Stacey, a founding faculty member, and course lead described the benefits of the practice sessions in the virtual classroom this way.

The trainings help faculty build their comfort level teaching online. We answer questions like, "what can you do in an online classroom that you can't do on the ground?" It's lots more exposure to specific techniques and tools. The trainings also provide time just to play around with the technology in an environment where it's not high stakes. You're not going to mess it up in front of your students. You can just sit in the room with other faculty and try out the

Table 1 Professional development in the online doctoral program

Type of professional development	Description of professional development
Asynchronous materials	Web-based files and videos about how to utilize the virtual classroom. Available at any time
Webinars	Synchronous web conferences. Topics typically addressed how to utilize the virtual classroom
Guided practice sessions in the virtual classroom with technical support staff	Individual and small group meetings with technical support staff inside of the virtual classroom. Guided practice sessions on how to utilize the functions of the virtual classroom, including sharing files and grouping students
24-h technical support via phone	Faculty had access to a phone number that they could call at any time to answer technical support questions
In-class technical support	Faculty could schedule a technical support liaison to participate in their virtual classes and troubleshoot technical issues in real time
Weekly faculty meetings	Each course has a “lead” who was in charge of deciding on curriculum for the course. The leads held weekly, synchronous meetings inside of the virtual classroom. The meetings typically featured two to six faculty members. In the meetings, faculty discussed course content and shared teaching tips and resources with their colleagues

virtual classroom. I’ve tried doing asynchronous video-based professional development for my peers, it’s not super effective. It’s not like the trainings.

As Stacey’s quote illustrates, the trainings provided faculty with a low-stakes environment to learn how to manipulate the virtual classroom. The trainings improved instructors’ confidence and self-efficacy in teaching online. Faculty in the online program also benefited from having access to technical support in the classroom. Faculty could arrange to have technical support sit in on virtual sessions, to help the instructor and students troubleshoot technical problems. Many newer faculty made use of this service, especially at the start of a new semester. Bernard, an adjunct who was new to the University of the West but had over a decade of experience in online programs appreciated the opportunity to have access to technical support both inside and outside of the virtual classroom.

The training on how to manipulate the platform was excellent. It is kind of like flying a plane, literally when you look at it, there’s a lot of moving pieces to it. When I started teaching I was a little nervous. I felt like, how am I going to do this for real, with a real class? Am I going to mess this up? I would actually have the tech support people in my classroom, in the background. The students knew they were there. If there was a technical problem or I needed help, they were there.

Bernard and other instructors were able to learn how to troubleshoot common errors with technical support in the classroom. As a result, the support staff provided on the spot professional development. Having access to tailored training inside and outside of the class helped online faculty improve their skill and confidence with technology.

The limitations of broad technology training

For faculty who had been in the online space for over 5 years, whether as instructors or through working in the technology industry, the existing training was limited in its' ability to meet their needs. They considered themselves highly skilled, and uninterested in training that was "generic". For example, Michael, a full-time faculty member who helped found the program said,

When we began teaching, we received some sort of tutorial book on how to use the learning management system. When I joined the faculty, I was actually on the advisory board for the company that developed the system. Not only did I know how to use the system, I actually knew the people who developed the system.

Because of Michael's background and previous professional experiences, the technology-related professional development offerings were rudimentary to him. However, not all faculty came with industry experience. Many of the faculty had traditional backgrounds in higher education. Still, their personal interests in technology and their experiences as self-described "tinkerers" who were willing to experiment with technology helped them develop knowledge that outpaced professional development offerings. Additionally, many of the faculty in the online program had been early adopters with regard to technology use. Half of the faculty interviewed for the study had been teaching in the online program since its' founding 7 years ago. As a result, these faculty members had to teach taught themselves how to teach using web-based technology. Here is how Stacey, a founding faculty member, describes her experience.

I learned to teach online by trial and error. When I started at the University of the West, I was the only one that was doing this full-time online, and it was the first term that we'd ever done it. We've been doing a lot a work since then internally (on online teaching), and I've been doing some small-scale studies. I've come up with my own methods that really work for me in that classroom. I just had to play around with it, and figure stuff out. It was a train wreck at the beginning, but I figured it out eventually.

Given their rich personal and professional histories with technology, faculty argued that some of the more general forms of professional development, including the webinars and asynchronous material, were not useful to them. Marie, a faculty member with 8 years of experience, described herself as "past the point where most professional development would be beneficial to me." Here is how she explains her perspective.

I read a lot of the literature on technology and online learning. I know a lot, and so the professional development I've attended, I've found to be pretty useless. They basically tell me things that I've already experienced.

While more experienced faculty did not derive great benefit from asynchronous materials, webinars, or synchronous trainings, they did admit that these resources were beneficial for newer faculty.

Developing technical and content knowledge in weekly faculty meetings

In interviews, both newer and more senior faculty said that weekly faculty meetings were the most beneficial form of professional development in the online program. Because of the size of the program, several faculty members taught different sections of the same course. Faculty would meet in groups by course to discuss curriculum and instruction for the week's course sessions. The meetings included between two and six faculty members. In those meetings, faculty got a chance to troubleshoot problems with teaching, and to gain advice for their colleagues. Instructors suggested that these meetings were beneficial because they dealt with topics of immediate interest. Salima, a full-time professor, described her experience this way.

The other forms of professional development are not as beneficial as the weekly meetings. I'm invested in the weekly faculty meetings, because well, I lead some of them. I also find them beneficial because they are related to the content that I am teaching that week.

Discussing the content for the week helped faculty clarify their weekly plans and achieve cohesion across the curriculum. Faculty could also share and consolidate course resources, including slides and lecture notes. Jackie, an adjunct who had been teaching in the program for less than a year, found that to be a beneficial opportunity.

I think sharing, in general, has been helpful. It is helpful to see what other folks are doing. We share slides and any of the resources that we produce. I often plan for two weeks out, so sometimes I've already done my planning for a session that other folks are starting to plan, but I think it's helpful to as a team regroup every week and discuss how the last week went, where we're at, where we're going, and to clarify what kinds of communications we want to have for the students. It's helpful to make sure that there's some equity across classes as far as how things are being graded and how we're handling assignments and submissions.

For Salima, Jackie and the others, the meetings were a chance to learn about what worked and what didn't regarding the weeks' content. Michael describes his experiences in helping others fine-tune their teaching during a weekly meeting.

There was one case study that I taught in my class that was not a good fit for our students. In the weekly meeting, I talked about what I had to do to make the lesson work for the students. We come together every week or two and talk about what happened and what's coming ahead. We talk about what needs to be changed for the next iteration of the course. It's constant feedback. Really, it's just tips and tricks. It's in the weekly faculty members where the true professional development happens.

Instructors also shared technology tips in the weekly faculty meetings. Katy, a faculty member who had been with the program since it started, found the meetings to be a space where she could learn from her colleagues.

We work collaboratively each week and talk about the choices we are making in our classrooms. When my faculty and I are meeting, we talk about the approaches that we have taken in the classroom. There are times when people have taken an approach to using the technology or approaching the content that is definitely different than one that I have experimented with before. I use what I learn from my colleagues and integrate it into my own teaching, and we work collaboratively every week.

Learning from colleagues in the weekly meetings was particularly beneficial to faculty who were new to online teaching. Hannah, a new adjunct faculty member who had been teaching in the program under a year, described her experience this way.

I think that a big benefit of those conversations is to talk to my colleagues. I'm a relatively inexperienced instructor and some of the other instructors are much more experienced, both in general and in the specific online program. I found it helpful to get ideas from the other instructors about how to engage the class and how to present certain materials effectively and to use technology. It's great.

Weekly faculty meetings provided a space for faculty to strengthen their technical and content knowledge. Faculty learned a great deal from talking to colleagues about upcoming class sessions and were able to use their newfound knowledge to immediately improve their teaching practice.

Pedagogical knowledge: a grey area for online instructors

The course meetings were a great place to prepare course content, and the guided practice sessions with instructional designers were a space to develop technical knowledge. However, none of the forms of professional development helped instructors develop pedagogical knowledge about how to teach online. Instructors believed that the same techniques that worked in face-to-face sessions might not work in online settings but were unaware of how or why to differentiate their instruction to meet the needs of online students. Faculty expressed a desire for support with online pedagogy. According to instructors, the professional development available did not teach online faculty how to adapt their teaching to the online

format. As such, they desired more support for doing things like facilitating discussion, promoting student interaction, developing collaborative learning experiences and supporting students' sense of community. The lack of such training was seen as a deficit of the professional development offerings in the online program. Bernard describes his feelings this way.

There was no training in terms of teaching. The training was, here's how you put people in groups. Here's how you have a discussion. Here's how you have students write notes in the notes pod. That was the training I had. It wasn't, "Hey, now that you're in the room with the students, what do you do?" I never had any training on online teaching.

Faculty expressed a desire for a space to reflect on how to teach online. Instructors across the board wanted more space to reflect on how to engage students online and create collaborative learning activities. Bernard's perspective encapsulates a sentiment echoed by other faculty. Salima describes her perspective this way.

We need some instruction on what teaching online looks like. Our discussions of online teaching are almost after the fact. We get together and we talk about what worked and what didn't work, as opposed to discussing our teaching practice on the front end.

Olivia, a new adjunct, expressed a need for training that addressed teaching online in greater detail.

I wouldn't mind some sort of advanced training on how to be innovative in your online class. I feel like I have a pretty solid grasp on the basics of the technology. When I used to teach in on-ground programs, there would be this sort of water cooler talk, where you're able to exchange ideas with each other. If I see a colleague doing something I can ask them, "what are you doing in your classroom?", and they could tell me about it. Or as we grab coffee, we talk about how we taught and what worked. None of that happens in an online context, except in these planning meetings. But there, we are just talking about the technology piece. We are not reflecting on teaching.

The sentiments expressed by Bernard and Olivia were shared by their colleagues. Faculty generally felt that professional development educated them about the "nuts and bolts" of online teaching—how to use the technology in the virtual classroom, but there was little support on how to adapt content to meet the online context.

Discussion

Faculty in the online program had access to a broad range of professional development opportunities, including asynchronous materials, webinars, guided practice sessions in the virtual classroom with an instructional designer, 24-h technical support phone line sessions, in-class technical support and weekly faculty meetings. Faculty had different perceptions of the utility of these offerings. Newer instructors found great benefit in professional development opportunities that

allowed them to gain familiarity with the technology. Faculty with under 5 years of experience found the practice sessions in the virtual classroom and access to technical support allowed them to feel confident teaching inside a synchronous virtual classroom. Instructors with over 5 years of experience teaching online found the technology trainings “generic” and pedantic. Many of these instructors had taught in the online program since its’ start and found that the professional development had not developed in line with their skills. This finding raises a question about how online programs build the capacity of tech-savvy instructors. Faculty in the online program suggested that training for online instructors should provide development for more novice learners and enrichment for those who are more skilled. It is worth noting that as the program developed, instructional designers were responsible for providing some level of professional development to faculty. Particularly in the practice sessions, technical support staff taught faculty how to utilize the virtual classroom. The perspectives of those who provide support to online faculty merit an area of further study.

Newer and more experienced faculty both agreed that the most impactful form of professional development was one that was designed for instructors, by instructors. In the weekly faculty meetings, instructors developed technical and content knowledge. These meetings were successful for several reasons. The weekly meetings were designed with instructors in mind. By focusing on curriculum and content for the week, they met instructors’ needs. The meetings also provided instructors with opportunities to learn from content experts whom they trusted.

Through the weekly faculty meetings, instructors formed a community of practice. Communities of practice are characterized by mutual engagement (i.e. the process of collaboration and relationship building), joint enterprise (i.e. development of shared meaning) and the development of a shared repertoire of communal resources (Lave and Wenger 1998). Wenger and Snyder (2000) write that communities of practice differ from project teams or formal work groups in that they are spaces where people actively learn from their colleagues’ expertise and work collaboratively to transfer knowledge, build skills and solve problems. In the weekly faculty meetings, faculty were able to troubleshoot technology and content area problems and acquire resources that would directly enhance their teaching practice.

What is particularly noteworthy about the community of practice that emerged is that it was beneficial to both newer and more established faculty. While research suggests that newer faculty desire more support in their on-boarding and development of new skills (Herman 2012), this study suggests that peer-support is beneficial to more experienced faculty as well. The opportunity to trade resources and receive information that was directly applicable to practice was appealing for faculty at all stages of their careers. Researchers and practitioners looking to develop effective professional development would do well to consider learning experiences that promote collaboration and peer-learning that is directly linked to one’s teaching practice.

Researchers and practitioners should also consider the necessity of creating virtual opportunities for distance educators to connect. As one of the participants pointed out, virtual faculty have limited opportunity for “water cooler talk” with

peers. Scheduled sessions are their only opportunities for dialogue with their colleagues. Toward that end, the weekly meeting filled a vital space that can easily disappear when programs are fully online. As more institutions move to distance models, they need to consider what may be gained and lost in terms of faculty interaction and development.

In this particular case study, participants felt that the professional development offerings in the online program supported their technical and content knowledge. They did not, however, feel that these offerings supported their pedagogical knowledge. Online instructors were aware that strategies that were used in face-to-face classrooms could not be totally replicated in the online environment. However, instructors still had questions about how to develop a “flipped classroom”, how to promote student engagement online, and what the right balance of collaboration was for distance learners. While there is a growing body of literature on the practice of teaching online (Berry 2017), faculty did not have a space to review this literature or learn from researchers in this field. As a result, faculty were left to their own devices to figure out what it means to be an effective online instructor. As retention in distance programs hinges on student engagement and learning (Gaytan 2015), universities should continue to be mindful about how faculty are educated regarding best practices in online teaching.

Conclusion

There are dozens of forms of professional development available to online faculty. Instructors in one online program derived unique benefits from six distinct offerings, were satisfied with six forms of professional development, including asynchronous materials, webinars, synchronous, practice sessions in the virtual classroom, 24-h technical support phone line sessions, in-class technical support and weekly faculty meetings. These professional development offerings helped to improve technical and content knowledge. Guided practice sessions and in-class technical support helped online faculty develop their skills with teaching in virtual classrooms. Weekly meetings with colleagues gave online instructors a space to discuss academic content. According to instructors in the online program, none of the professional development offered addressed online pedagogy. Instructors would like more intentional programming and resources regarding effective online teaching strategies and methods to promote engagement and learning in distance programs.

As online programs continue to expand, research on professional development in these programs is necessary to ensure that instructors can differentiate instruction and meet students’ needs. Future research should assess the effectiveness of professional development for online faculty in meeting instructors’ needs for pedagogical support and students’ needs for engagement and community.

Compliance with ethical standards

Conflict of interest The author declares that she has no conflict of interest.

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Sharla Berry is an Assistant Professor of Educational Leadership in the Graduate School of Education at California Lutheran University. Her research explores teaching and learning with technology in K-20 environments.