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Professional Development Support for the Online Instructor: Perspectives of U.S. and German Instructors

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Abstract

With the increase in number of courses being offered online, there is an increase in the need for professional development support for instructors to teach online. The purpose of this study is to examine faculty perceptions on professional development needs for online teaching, specifically in the U.S. and in Germany. Based on a qualitative open-ended survey, four themes emerged on the professional development needs of instructors for administrative support, personnel support, pedagogical support and technology support. This study discusses specific areas of support in these themes and provides implications for administrators, faculty, and support staff.

Introduction

Technology has a significant influence on students, instructors, and higher education institutions involved in online learning. Trammell and LaForge (2017) examined online enrollment since 2002 and found that online students make up a considerable percentage of universities' student

body. In fact, Allen and Seaman (2017) found that in Fall 2015, well over six million students took at least one online course. As the demand for online courses increases, faculty are expected to offer instruction in multiple modalities, such as hybrid or fully online courses (Allen & Seaman, 2011, 2013, 2017). The shift towards online teaching requires that higher education institutions adjust their approaches, both in hiring and offering professional development support for instructors. Online learning will only increase in the future, and institutions need to identify ways to provide ongoing support for instructors to prepare them to teach in online learning environments (McGee, Windes, & Torres, 2017; Mohr & Shelton, 2017). For many instructors, the shift from a face-to-face to an online teaching environment can be unsettling and jarring; institutions need to explore ways to support the pedagogical shift from teacher-centered to learner-centered instruction (Baran & Correia, 2009).

The typical way that institutions have supported instructors has been through professional development. Professional development programs vary by institution, delivered using multiple approaches and modalities, with no single model as a standard (Echols, Neely, & Dusick, 2018). Most follow the traditional model of professional development, offering a wide selection of short, individual, training options such as workshops, seminars, webinars, teaching guides, and consultations (Lee, 2010). Other institutions invite outside speakers or require instructors to travel for the in-service training (Kennedy, 2016; Trust, Krutka, & Carpenter, 2016). The one-size-fits-all approach to professional development creates a misalignment between the specific aims of the professional development and the varied and complex needs of instructors (Opfer & Pedder, 2011). This misalignment between aims and instructor needs is only magnified when online instructors have varied experience levels and backgrounds.

Professional Development for Online Instructors

For many instructors, online teaching is a new experience. Thus, they need support to make this transformation – from their content, to how to interact with their students, to how they utilize technology (Baran, 2018). Often, instructors are tasked to teach online without being given sufficient preparation or guidance (Power & Morven-Gould, 2011; Windes & Lesht, 2014). In order to prepare instructors to teach online, they should be introduced to online teaching methodologies (Bailey & Card, 2009; Vaill & Testori, 2012) and be given an opportunity to learn best practices for successful online facilitation (Moskal, Thompson, & Futch, 2015). Furthermore, Baran (2018) offers the recommendation that professional development opportunities should focus on instructors' pedagogical inquiry. Williams, Layne, and Ice (2014) suggest that the focus of professional development for online instructors should be on their effectiveness as instructors. This can be supported by taking a more holistic approach to professional development instead of focusing only on technology skills or instructional design (Rhode & Krishnamurthi, 2016; Rhode, Richter, & Miller, 2017).

Common barriers to online teaching include instructor’s own perceptions of the quality of online instruction or their ability to foster student learning in this new environment (Gregory & Martindale, 2016). One way to address this is by creating a sense among instructors that technology is a primary driver of online learning and this dictates that they need to constantly learn new approaches of using technology (Fabrice, 2010). But it is more than just knowing that they need to use technology; it is also understanding how and when to make use of technology in

their instruction (Ouellett, 2010). Shifting the focus of professional development from a one-size-fits-all to a more teacher-centered approach will aid in encouraging faculty to make the transition to online instruction (Baran, 2018). This is reflected in the work of Elliott, Rhoades, Jackson, and Mandernach (2015) who found that professional development programs that allowed for flexibility and self-paced scheduling were the most successful. They also found that instructors were most receptive to learning things that could be immediately applied to their instructional context and placed a high value on opportunities for self-improvement and networking with peers.

One reason why the traditional professional development approach does not work for online instructors is that it does not take into account the differences in online teaching or instructors' prior experience or needs (Rhode et al., 2017). Additionally, in the online environment, instructors have new responsibilities, including developing teacher presence and connection to students (Baran, Correia, & Thompson, 2013).

Framework on Professional Development for Online Teaching

Baran and Correia (2014) offer a framework on the three levels of professional development for online teaching: organization, community, and teaching. Organization refers to rewards, recognition, and positive organizational culture towards online education. Community refers to collegial learning groups, peer support programs (peer observation/peer evaluation), and mentoring programs. Teaching refers to workshops/showcases, training programs, and one-on-one assistance.

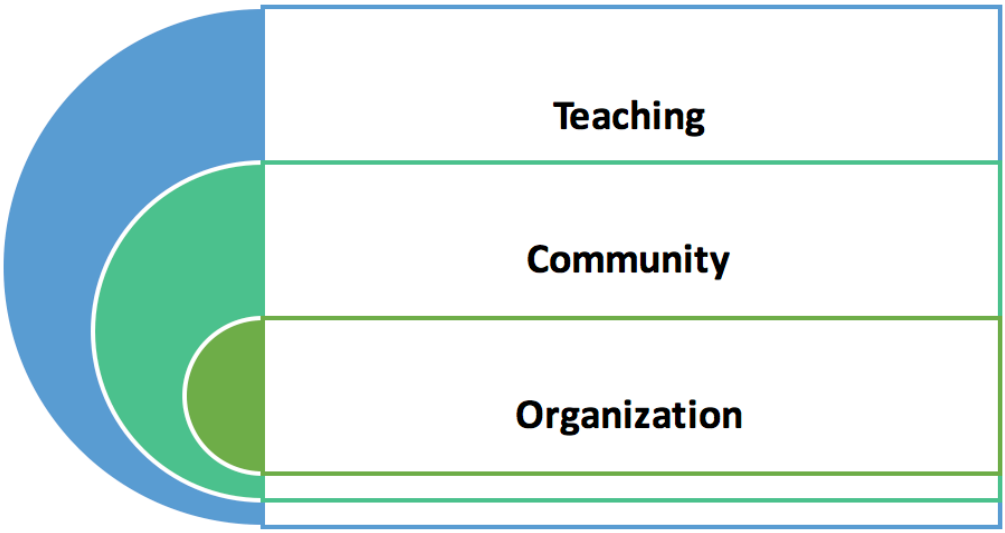

Figure 1. Professional Development Framework for Online Learning (Baran & Correia, 2014)

Organization

At the organization level, the organizational culture is a key component (Baran & Correia, 2014). As previously discussed, perception is important, and thus the culture of the organization can

significantly influence the success of an online instructor. When organizations make it clear that teaching online is not only valued but also considered to be on par with face-to-face instruction, instructors will be more motivated to teach online (Baran & Correia, 2014). It is critical that the overall organizational perception of online education is a positive one (Baran & Correia, 2014). One of the ways that an organization can develop this positive culture is by offering incentives for teaching online (Herman, 2013). These incentives can be financial, but they can also be in the form of faculty development (Herman, 2012) that is much more effective when addressing a skill gap or need of an instructor (McGee et al., 2017).

In their review of higher education professional development programs, Gregory and Martindale (2016) found that by offering professional development for instructors, institutions benefited by these instructors being more effective in their instruction. Professional development has become increasingly prevalent with the establishment of centers of teaching and learning (CTLs), which are administrative units in higher education that develop and implement faculty development programs (Herman, 2012). In the higher education organization structure, these support centers are often housed under Academic Affairs or the Information Technology Support department. CTLs staff instructional designers and instructional technologists who take on four categories of responsibilities: (1) design instructional materials and courses for digital delivery; (2) manage the efforts of faculty, administration, IT, other instructional designers, and others to achieve better student learning; (3) train faculty to leverage technology and implement pedagogy effectively; and (4) support faculty when they run into technical or instructional challenges (Intentional Futures, 2016).

Community

At the community level, instructors need to have communities of practice or peer support (Baran & Correia, 2014). This knowledge can be developed through their Peer Learning networks or through engaging with peers who have more experience in the online environment. Communities of practice enhance faculty development programs by allowing faculty to engage in deeper understanding of topics and contribute artifacts, practices, or documentation to the larger field (Bond & Lockee, 2018). Communities of practice are social groups that help spread evidence-based approaches for educators to learn from each other (Becker et al., 2017). Communicates of practice are strong agents in the future of faculty professional development (Stark & Smith, 2016).

Additionally, faculty peer mentoring programs have long been a part of faculty professional development programs in higher education. Mentoring programs provide faculty with a model of best practices, a person from whom to seek guidance, and an evaluator of ability from evidence-based performance (Childre & Van Rie, 2015). Some strategies for successfully implementing a faculty mentoring program include: (1) documenting mentoring activities on CVs for promotion; (2) awarding outstanding mentors; (3) and establishing mentoring teams with three types of mentor roles (i.e., career mentor, scholarly mentor, and co-mentor) (Feldman et al., 2010). Faculty mentors have been found to be strongly related to job satisfaction and instructor success (Lunsford, Baker, & Pifer, 2018; Wasserstein, Quistberg, & Shea, 2007).

Teaching

Baran and Correia (2014) identify several aspects at the teaching level, including pedagogical, technology and design and development support. In order to be effective online instructors, faculty must develop an understanding for how to leverage online technologies (Baran & Correia, 2014). It is critical that instructors are given firsthand experience with both teaching and learning in online environments. Many online instructors have never taken an online course which presents challenges (Schmidt, Tschida, & Hodge, 2016) and many are new to online teaching, further compounding these challenges (McGee et al., 2017). An effective way to address this challenge is by developing professional development opportunities that allow first-time online instructors to experience on online learning environment as a student (Baran et al., 2013; Jackson, 2018; Sheffield, McSweeney, & Panych, 2015). In a large size online course, teaching assistants are used to support the online instructor.

Purpose of this Study

There is much to learn about instructors' needs for professional development in online learning (Bond & Lockee, 2018) so that universities can offer the support they need to be effective online instructors. The purpose of this study is to examine faculty perceptions on professional development needs for online teaching, specifically in the U.S. and in Germany. The following research question guided this study: What are faculty perceptions on professional development needs for online teaching?

Method

Instrument

An open-ended survey item was used to obtain a detailed account of instructor needs for teaching online (Dillman, 1999; Kvale, 1996). The open-ended survey question was part of the Faculty Readiness to Teach Online (FRTO) survey which had several closed-ended and open-ended questions. The survey was designed in English, translated in German, and administered in both English and German to respective participants. The closed-ended items were reported in a different publication, and this study focuses on the open-ended question on professional development needs of instructors to be ready to teach online.

Participants

University instructors who teach online courses in the United States and Germany participated in this study by answering a survey distributed to one institution and two online teaching special interest groups in each country. In the United States, the survey was distributed to members of the Association for Educational Communications and Technology, the Online Teaching and Learning Special Interest Group with the American Educational Research Association, and a southeastern university. In Germany, the survey was distributed to members at e-teaching.org, the Hochschulnetzwerk Digitalisierung der Lehre in Baden-Württemberg (HND BW), and a southwestern university of education.

There were 205 instructors in the United States and 61 instructors in Germany who responded to the larger survey, of which there were 117 responses from the U.S. instructors and 32 responses from the German instructors. Of the 205 instructors in the United States, 144 (70%) were female and 61 (30%) were male. As for the disciplines, the majority (73%) were in the field of education. The age of U.S. participants ranged from 25 to 75 with a mean of 49.55 and a standard deviation of 10.94. Of the 61 instructors in Germany, 29 (48%) were female and 32 (52%) were male. As for the disciplines, 22 (33%) were teaching arts, and 39 (63%) were teaching engineering. The age of the German participants ranged from 27 to 61 with a mean of 42.81 and a standard deviation of 8.61.

Data Collection

An electronic survey was created using the SurveyShare application at one of the researchers' institutions. This was used to collect responses from faculty. Institutional board approval was received before the survey was distributed to the instructors from both the U.S. and Germany. While the first few items were closed-ended and were analyzed for a different study, responses from instructors who answered an open-ended question in the survey, *"What type of support would you have liked to have while preparing to teach online?"* were analyzed for this study.

Data Analytical Procedure

Thematic analysis (Nowell, Norris, White, & Moules, 2017) was employed to analyze the responses to the open-ended question, and the following steps were followed: (a) codes were identified from keywords; (b) frequency of codes were tabulated; (c) codes were merged into themes; (d) codes were ranked by frequency within themes; and (e) themes were reviewed for overlapping and cross-listing of codes. These steps were adapted from Braun and Clarks' (2006) six-phase framework for doing a thematic analysis.

The data were collected in two different languages (English and German). Budhrani, Ji, and Lim (2018) suggest that in order to mitigate the challenge of mistranslation and cross-cultural misinterpretation in cross-national, multilingual research contexts, the research team must collaborate to set up clear guidelines for key decisions and build consensus. Following through, the authors collaborated in coding and developing themes before coming to a consensus on responses garnered from U.S. and German participants.

We note a limitation in the breadth or depth of responses from German participants. After counting the number of words used in the responses to the open-ended question, we had an interesting finding: U.S. participants used an average of 42 words in each response whereas German participants used an average of 32 words for each response. This result suggests that U.S. participants were more verbal than German participants in their responses to the open-ended question.

Results

In this section, we present our findings from U.S. and German participants respectively before synthesizing the findings. Four common themes (Figure 1) were identified for both U.S. and

German instructors' responses: (a) administrative support; (b) personnel support; (c) technology support; and (d) pedagogical support.

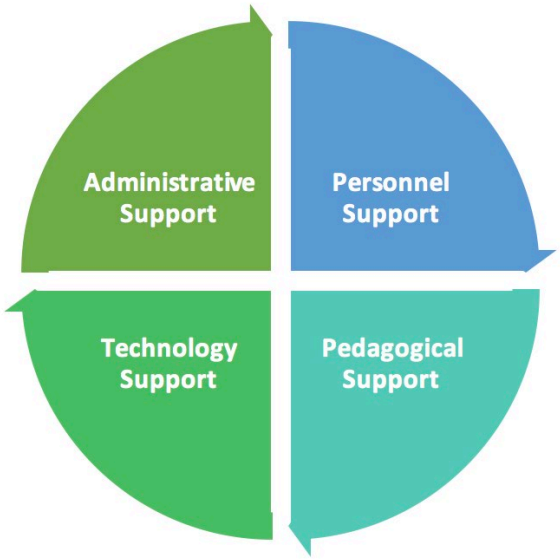

Figure 2. Themes for Professional Development Support Needs

Table 1 provides a more granular view of the professional development support needs that surfaced from the responses of the U.S. and German instructors. Sub-codes are ranked by frequency, based on the number of times each code was cited in the data. Each theme is elaborated in the succeeding sections.

Table 1. Professional Development Support Needs of U.S. and German Instructors

	U.S. Instructors	German Instructors
Theme	**Sub-codes**	**Sub-codes**
Administrative Support	More time (i.e., preparation, interaction w students)	More time
	Decrease class size	Less administrative barriers
	Credit for teaching online	
	Include course development into teaching load	
	Recognize quality in online courses	
Personnel Support	Design/development support staff (instructional designer, technician, multimedia designer, coders/programmers)	Consultants
	Faculty/peer mentor	Tutors
	Faculty learning community (i.e., sharing what worked/didn't work; insights from experienced instructors)	Development support staff (director, scriptwriter, programmers)
	Student teaching assistant	Examples
Pedagogical Support	Teaching strategies (e.g., how to write objectives, how to facilitate online, how to manage time, how to set up group work)	Workshops
	Training program to teach online (webinars, 1-1 consultation, formal workshops, dept workshops, opportunities for practice)	Instructions/guidance
	Instructional resources (video tutorials, how to check lists, access to examples)	
Technology Support	Technical support (access to tech support, just in time support)	More software
	Software for video creation	Sandbox for testing
	Hardware (e.g., cameras and headsets)	Adjusting user interface for LMS

Administrative Support

U.S. Instructors

U.S. instructors most frequently expressed the need for more time, specifically more time to prepare and facilitate for online courses. They also indicated the need for having smaller class sizes, additional credit for teaching online, teaching load reduction for course development, and recognition of quality in online courses for administrative support. One instructor wrote,

Recognized, dedicated time for interacting with students - I feel that interactions including the discussion forum, detailed announcements, email as necessary, and detailed feedback on all types of student work very important for learning as well as a sense of my presence and interest in students.

German Instructors

Among German instructors, time was also the most frequently expressed need, along with wanting less administrative barriers. One German faculty wrote, *"I have everything I need except time."* It is unclear what administrative barriers were being referenced as the instructors did not provide any examples or details expanding on this.

Personnel Support

U.S. Instructors

U.S. instructors also expressed the need for personnel support to teach online (e.g., instructional designer, technician, multimedia designers). They also requested the support of faculty/peer mentors to learn and collaborate as they transition to online teaching. Instructors also requested to have student teaching assistants to assist with design and facilitation of online learning. They saw the need for a faculty learning community to share what works, what does not work, and insights from experienced instructors. One instructor wrote,

It would have been helpful to shadow a more experienced online instructor. I now do this for my colleagues by adding them to my course as a TA when they are starting out.

German Instructors

Personnel support also emerged from German instructors' responses. They expressed a need for assistance from staff and tutors with developing courses, specifically for media production and pedagogical advice. In Germany some of the personnel support the instructors requested included *"director, scriptwriter, programmers for animations and demos."*

Pedagogical Support

U.S. Instructors

Pedagogical support was another area that U.S. participants needed. They requested guidance on teaching strategies for online courses, such as how to write objectives, how to facilitate online courses, and setting up group work. Another area of pedagogical support was guidance on creating instructional resources, project-based and problem-based learning, as well as active learning techniques. They wanted to know the difference between online courses and face-to-face courses and expressed a need for a robust training program to teach online. One instructor wrote:

I would have liked to have interacted with experts on a routine basis to discuss instructional strategies rather than just focusing on content delivery. We have to begin shifting our focus and adapt to the online medium.

German Instructors

There were several requests from the German instructors that were pedagogical by nature. Since teaching online is still emergent in German university culture, faculty have expressed the need for training. German participants mentioned that they appreciate when the university provides workshops about how to introduce new ways of teaching. They also preferred to have best practice examples of online course design. A German instructor wrote, "*more workshops, possibly also accompanying the seminar to reflect experiments*." German instructors also expressed the need for practical course examples and additional instructions and/or guidance on how to develop and implement an online course. One German faculty member described the need for a "*basic introduction and assistance in the preparation of the first courses.*"

Technology Support

U.S. Instructors

U.S. instructors expressed a need for hardware such as cameras and headsets, as well as software such as video creation tools (SnagIt, Voice Thread etc). They also needed technical support for LMS or online courses, e.g., how to create animation, how to make narrative PowerPoints, and how to do video captioning. They also would have liked to have just-in-time tech support. Some instructors wanted to learn how to make videos/video clips, mini lectures and demo videos. One instructor wrote,

I would have liked training on additional resources, such as SnagIt, VoiceThread, etc. that I could use to support and enrich my online courses. I would have also like a list of available resources that my institution has for faculty to use.

German Instructors

German instructors requested more software and also an overview of existing tools and software licenses at the university. One German instructor indicated the need for "*more readable information about the different tools, how they are set up and what they can be used for, what other tools can be used in a similar way, and how they differ*." They mentioned the need for a "sandbox" for testing and adjusting the user interface of the Learning Management System.

Discussion

The same four common themes emerged from examining professional development needs of both U.S. and German Instructors: Administrative, Personnel and Pedagogical and Technology Support.

Administrative Support

Time seemed to be the most important need both for U.S. and German faculty. The U.S. faculty specifically requested that they receive time for developing the online course and also have fewer students in the online course. Mandernach, Hudson and Wise (2013) found that online instructors spend more than 40 hours a week facilitating online courses with a lot of time spent on providing feedback and interacting with the students. When instructors have full teaching loads, it is challenging to devote the time needed to prepare and create an effective online course. It is important to provide additional course development time for instructors to design the course at least a semester before it is delivered. The German instructors mentioned administrative barriers that prevent them from being ready to teach online. Though online teaching has become more common in the U.S., it is still not as common in rest of the world. In addition, designing quality online courses was brought up by the instructor as an area which needed support from administration. This reiterates the need for administration to implement quality standards and rubrics such as quality matters (Quality Matters, 2018) on their campuses so that the online courses designed are of high quality.

Personnel Support

Design and development personnel support such as instructional designers, multimedia developers, technicians and scriptwriters were some of the personnel requested to support the instructors both in the U.S. and in Germany. Instructional design support was the most commonly requested personnel support along with technicians and multimedia support. While years ago, the job title “instructional designer” did not exist on several campuses, now efforts are being made to hire multiple instructional designers for the teaching and learning units to provide course design support for faculty. Many CTLs are challenged with developing new programs and services as they are constrained by limited staff and resources. To expand their range of options for faculty development, CTLs must leverage collaborations and partnerships with on-campus (i.e., support units on campus, colleges and departments) and off-campus (i.e., professional networks or organizations, other universities) expertise (Brinthaupt, Cruz, Otto, & Pinter, 2019).

In addition, faculty requested that peer mentors/tutors are important as they prepare to teach online. In the U.S., faculty learning communities and student teaching assistants were requested as important in preparing to teach online. Childre and Van Rie (2015) found that faculty mentors are able to provide their mentees with a model of best practices (Childre & Van Rie, 2015). This not only benefits the faculty member who is new to teaching online, but also provides job satisfaction and instructor success for the mentors (Lunsford, Baker, & Pifer, 2018; Wasserstein, Quistberg, & Shea, 2007). Teaching assistants were also requested under personnel support. Teaching assistants are especially helpful in large online courses and to assist facilitating discussions. Yang (2008) found that teaching assistants who used Socratic dialogues in small-

group online discussions assisted in developing students' critical thinking in a large-size university class.

Pedagogical Support

Instructors also requested pedagogical support on teaching strategies. Several of the instructors in higher education outside the college of education do not have any formal training to teach, and specifically to teach online. However, we are now beginning to see some doctoral programs create courses on teaching strategies, including teaching strategies for online courses so that when doctoral students graduate, they have some knowledge and skills on how to teach. Some of the teaching strategies that were listed as needed by the instructors include how to write objectives, how to facilitate online, how to manage time, and how to set up group work. This shows the importance that instructors place on designing and delivering effective courses (Martin, Wang & Sadaf, 2018), managing their time well and including interaction and collaboration (Martin & Bolliger, 2018) in their courses to engage their students. These are critical elements of online course design, and training programs and resources should be created to inform and prepare their instructors for online teaching.

Looking at the trends of instructor needs, it is necessary for instructors to develop digital fluency with the technology, which implies that support must extend beyond isolated technology skills towards deeper understanding of how to use technology in new teaching and learning contexts (Becker et al., 2017). Faculty training should be delivered using multiple approaches and modalities to accommodate faculty needs. More traditional methods of faculty training in face-to-face modality is best for demonstrating hands-on teaching strategies or course design processes. One-on-one sessions with an instructional designer allow faculty to engage in problem solving with a systematic design process for course design and development. Face-to-face can be costly in terms or manpower and time. Online faculty development such as online courses, webinars, tutorials, teaching guides, and videos can assist faculty with just-in-time, reusable instructional resources, and can ultimately reduce training costs and reduce geographic barriers that faculty face.

Technology Support

The U.S. instructors requested both hardware and software support in terms of technology support whereas the German instructors mostly requested software. With the technology advancement, a variety of hardware and software are now available and can be used for teaching and learning. However, instructors do not always have access to the latest hardware such as cameras and headsets or to the software that can be used to record online videos and add interactivity to their lessons. Departments and organizations should set a budget to provide online instructors with the technological resources essential for the design and delivery of online courses. Technology support for hardware and software extends beyond operation to installation, maintenance, network administration, and data security for students and instructors (Espiritu & Budhrani, 2019; Moore & Fodrey, 2018). It is important for organizations to also think about these additional factors that play a role when technology is used in the courses.

In addition, instructors also prefer just-in-time technology support and help desk access. More

and more organizations are beginning to set up a support system to provide 24-hour access for faculty and students to provide support on technical issues such as questions related to the Learning Management Systems. However, while basic questions are addressed by these helpdesks, not all organizations provide just-in-time support to assist the faculty in designing the online course. Virtual chat functions and video conferencing technologies make the just-in-time technology support to be made possible for the instructors.

Alignment to Framework

The four professional development themes that resulted from this study align with the professional development framework for online teaching: organization, community, and teaching (technology, pedagogy, content) proposed by Baran and Correia (2014).

Table 2

Professional Development Framework for Online Learning

	Martin et al.	Baran and Correia (2014)
1	Administrative	Organization
2	Personnel	Community
3	Pedagogical	Teaching
4	Technology	Teaching

Limitations

The data examined in this research study was from an open-ended question in a survey. This study did not use triangulation (interviews in addition to survey responses). Findings from this study are based on instructor perception and can be biased and not generalizable.

Implications and Future Research

Results from this study have implications for administrators, faculty, instructional designers, technologists, eLearning support staff, and university policy makers along with online instructors. Administrators are expected to provide support for faculty especially in providing the necessary resources for their organizations to have personnel and technology as they begin to offer more courses online. Instructional designers and multimedia designers must know what support online faculty members need. Providing the faculty with online teaching strategies is also vitally important. University policy makers need to provide policies, guidelines, and resources around support for professional development. Future studies should interview both faculty and administrators and staff who provide support to triangulate this data from an open-ended survey item. Institutions may also need to develop support for faculty members who may not desire formal or standardized professional development. More attention needs to be given to creating individualized, personalized support for instructor needs.

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