
Enhancing Online Education through Instructor Skill Development in Higher Education

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Abstract

Rapid growth of online education and the perceived difference between online and face-to-face instruction has necessitated training and support for instructors transitioning to online delivery. The research reported here resulted from an evaluation of a six-week fully online training program, *Preparing Online Instructors (POI)*, to determine what constitutes an effective online training program. It was found that online training programs should emphasize both technological and pedagogical skill development, evaluate participants' training needs prior to the training, and provide ongoing resources and support mechanisms after the training. The findings from the study inform administrators and professional development providers on how to plan and implement an instructor-training program to enhance online teaching skills.

Introduction

Online education has grown significantly over the past ten years in higher education. Due to the rapid adoption of electronic communication media, many educational institutions are delivering a large portion of their classes and curricula online. Allen and Seaman (2008) reported that online enrolments increased 13% versus a 1.2% increase for the total student population in the same time frame. Over 3.9 million students enrolled in an online course Fall 2007. It is predicted that online course enrolments will continue to grow in all sectors of education (Allen & Seaman, 2008).

The proliferation of online learning has stimulated discussions about the quality of online course delivery and instructor development. Instructor expertise and dedication have been cited as the most important factors contributing to quality online courses (Abel, 2005; Varvel, 2007). However, many instructors report they are unprepared to teach online because they have been mostly prepared to teach in a traditional classroom environment (Wilson, 2001; Varvel, 2007). Although some of the methods and techniques used in face-to-face delivery can be transferred to an online setting, online instruction differs significantly from face-to-face instruction and can present numerous challenges for instructors transitioning to a virtual environment (Hardy & Bower, 2004; Ko & Rossen, 2004; McLean, 2005; Paloff & Pratt, 2001). To address online learners' needs, instructors need to acquire new skills, roles, strategies, and techniques (Varvel, 2007). First and foremost, online teaching requires the instructor to shift "from being content providers to facilitators of student learning...[they] must gain comfort and proficiency in using the Web as the primary teacher-student link, and learn to teach effectively without the visual control provided by direct eye contact" (Smith, Ferguson, & Caris, 2002, p. 62). To transition successfully from a traditional classroom to a virtual environment, faculty need training and support (Ko & Rossen, 2004; Taylor & McQuiggan, 2008).

Huett, Moller, and Young (2004) reported that only 60% of higher education institutions offered training programs for online instructors. Wolf (2006) conducted a meta-analysis of the literature on faculty training and found a dearth of scholarly research related to training instructors to teach online. The literature mostly describes existing training programs and best practices of preparing online instructors based on theoretical stances and anecdotal evidence. There is little research on what constitutes effective training from the perspectives of the instructors who received training.

The purpose of the research reported here was to examine participants' perceptions of the quality and effectiveness of a six-week, fully online training program, *Preparing Online Instructors (POI)*, at a land-grant university. The study highlights strengths and weaknesses of POI and informs distance education administrators and instructional designers how to plan and implement an online instructor training program. The following evaluation questions guided the study:

1. What were participant perceptions of the effectiveness and quality of POI?
2. Which aspect(s) of POI did participants find most and least beneficial?
3. To what extent did POI improve instructors' skills for teaching online?

Literature Review

The need for instructor preparation to teach online has been established in the online education literature (Almala, 2006; Levy, 2003; Miller & King, 2003). Well-planned and well-organized instructor training programs have been identified as a prerequisite for success in an online setting (Wolf, 2006). To this end, some researchers proposed different, yet supplementary, approaches and focuses. Gibbons and Wentworth (2001) recommended that instructor training programs be delivered online to put instructors in the position of online learners to foster a better understanding of online learners' needs and challenges. It is advisable that training programs foster online facilitation skills such as providing feedback and encouragement to students as well as managing disruptive students (Hitch & Hirsch, 2001). Lawler and King (2001) advocated for online instructor training programs that treat instructors as adult learners to engage in reflexive practice.

Pankowski (2004) noted that many training programs focus mostly on technical aspects of online teaching. Ascough (2002) argued that pedagogical and technical aspects of online teaching should be given equal emphasis in the training program curricula. For this reason, it is necessary to take instructors' needs into consideration during planning and implementation of training programs. As Wolf (2006) put it, "Effective programs survey their faculty to determine what type of support is most desired" (p. 58). Additionally, professional development programs should be evaluated for improvement and appropriateness (Clay, 1999).

Faculty Training in U.S. Higher Education

University of Central Florida (UCF) exemplifies what a professional development program for online instructors might look like. UCF offers a comprehensive, three-tier faculty support program through its Center for Distributed Learning. The first tier takes 80 hours to complete and is delivered in a mixed-mode format. Upon successful completion of the course, faculty members receive a stipend and laptop computer for their participation. The second tier is a self-paced program designed to prepare instructors to deliver a course developed by other faculty members. The third tier course is a self-paced online workshop that enables instructors to develop knowledge and skills to design and deliver a traditional course with Web enhancements. All three courses address pedagogical, logistical and technological issues of online course development and delivery; each one to a different extent (McCarthy & Samors, 2009).

The Pennsylvania State University offers instructors a self-paced program that focuses on understanding distance learners and differences between face-to face and online instruction, including defining learning objectives and content, assignments, assessments, and types of interaction. Instructors chose appropriate technology and understand ethical and legal issues with online education (Moore, 2008). At Fort Hayes State University, a collaborative approach is used to prepare and support online instructors. The collaborative approach involves providing instructors with incentives, workshops, a professional development course, a virtual studio, peer sharing and support sessions (Wang, 2009).

The University of Maryland University College (UMUC) administration requires instructors who are pursuing online education to complete a five-week entirely online course. Before enrolling in training, instructor should have a minimal set of competencies including how to use a computer, the Internet, and online applications. Trainees assume both the role of student and instructor to learn how to use the content management system from both perspectives. After the training, UMUC provides ongoing support in the form of shadowing, mentoring, and continuing education workshops (Wolf, 2006).

Based on the examination of the faculty training program at UMUC, Wolf (2006) identified the following features for success: 1) the course was led by an instructor trained to teach online, 2) participants have computing skills, 3) participants use the course delivery system they will be teaching with, 4) participants have ongoing institutional support, and 5) participants are motivated to teach online.

The online education literature is replete with information about available training programs for online instructors. What is insufficiently reflected in the literature regarding instructors' preparation to teach online is the actual experiences of instructors who have participated in the training programs. In spite of some empirical studies that present instructors' views on the offered training, more research is needed that can provide insights to the ways in which training programs address instructors' needs in preparing them to teach online.

Methodology

The findings from the study resulted from an evaluation of a six-week online training course for university faculty, *Preparing Online Instructors (POI)*. A management-oriented approach to evaluation was used to determine how well the program met the needs of participants and what program revisions were needed (Fitzpatrick, Sanders, & Worthen, 2004). Management-oriented evaluation gives priority to managers in meeting their information needs and collecting data to inform practice. As a result of the evaluation, both positive and negative aspects of the program were revealed and recommendations for improvement were suggested. An overview of the POI model is presented first, followed by a description of the data sources.

Program Description

Preparing Online Instructors (POI) is a six-week online certificate course developed and delivered by instructional design professionals at a teaching center at a land-grant university. The goal of the program is to immerse instructors in an online course that requires participants to enroll as a distant student, experience typical distant student behaviors and communication practices, and develop positive online teaching practices and classroom management strategies. The participants of POI are primarily university tenure-track faculty members and some instructors and teaching assistants. Many of them have never taught online before, but may have used some online components such as posting syllabus and lecture notes to a university course management system. All participants express great interest in exploring teaching online and developing online pedagogy and technology skills, thus enrolling voluntarily in this intensive training course that provided no incentives except the completion of a participation certificate. To ensure the quality of interaction and model good principles in an online course, POI only allowed 20 participants in the course. The course delivered one module per week for six weeks. Module topics included online course design and syllabus; building an online classroom, online course activities and assignments; online instructional content, and multimedia; copyright and fair use; best practices and online classroom management. Each module has multiple assignments, and discussion board in a course management system is used to facilitate weekly discussions of content. The teaching center provided a free textbook to the participants.

Participants

The target population for the study was university faculty and instructors who enrolled in one of two sections of POI during spring semester of 2009 (n=40). The two sections were parallel with 20 participants each course. Because a census was used, no sampling procedures were required. Levels of online experience ranged from primarily novice to a few who had delivered online courses.

Data Collection and Analysis Procedures

A researcher-developed survey was used to explore participants' experiences with POI. The instrument consisted of both closed- and open-ended questions. The Seven Principles of Effective Instruction in Undergraduate Courses proposed by Chickering and Gamson (1987) and modified by Chickering and Ehrmann (1996) for multimedia use were used as the framework for the survey items. These principles are: 1) facilitate contacts between students and instructors, 2) foster reciprocity and cooperation among students, 3) promote active learning, 4) provide prompt feedback, 5) emphasize time on task, 6) communicate high expectations, and 7) respect diverse talents and ways of learning. Survey items also took into account Lawer and King's (2001) suggestion that faculty development initiatives should consider participants as adult learners and provide them with the opportunities relevant to their personalities, life and educational experiences, and learning preferences.

The survey was discussed with and reviewed by the faculty development manager in the teaching center that offered POI. Subsequent revisions were made. The survey was uploaded to Question pro® website, which is a free online portal for creating web surveys. Afterwards, the link of the survey was made available to the study participants in a solicitation e-mail along with informed consent and study volunteer rights. A follow-up e-mail was sent a week later to remind participants to complete the survey. Twenty-two usable surveys were returned for a response rate of 55%.

The data were processed using SPSS® 16.0 for Windows. Descriptive statistics were used for the analysis. The information was analyzed item by item and then cross-analyzed holistically. The open-ended questions were content analyzed to supplement and further explain the statistical data. Throughout the course, the research team examined discussion board postings to experience the dynamic of the participants. Since all participants from two training sessions were asked to write about 100-200 words to reflect on their training experience in the last week of the course, this assignment, which was posted on the discussion board, was analyzed qualitatively.

Limitations

While some analytical generalizations can be inferred, the intent is not to generalize the results beyond the participants in the two sessions of Spring 2009 POI course. The study was limited by a small sample size and limited population of instructors from one university.

Findings

Eighty-six percent of the respondents found the content of the course meaningful, and 80% of respondents found the content enriching. Seventy-one percent of respondents indicated that the course enhanced their technological skills of online teaching, and 86% of respondents pinpointed the strong pedagogical orientation of the course (Table 1).

Table 1

Participants' Perceptions of the Content of the POI Course

Survey Item	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
The content of the course was meaningful.	66.7%	19.0 %	4.8 %	9.5 %	--
The content of the course was enriching.	65%	25%	5.0%	5.0%	--
The course provided ample opportunities for improving technological skills of online teaching.	42.9%	28.6%	14.3%	14.3 %	--
The course has strong emphasis on the pedagogical aspects of teaching online.	47.6%	19.0%	23.8%	9.5%	--
The text-book was well-chosen.	38.1 %	33.3%	19.0%	9.5%	--
Assignments for this course were useful and appropriate.	47.6%	33.3%	9.5%	9.5%	--

In addition, participants were satisfied with modes of communication within the course. A discussion board was used for course discussions. Participants could also email course instructors and other participants. The majority of respondents described the discussion board as an effective means of communication with the instructors (76%) and peer participants (80%). Eighty percent of course participants indicated that discussion board reflection assignments were well-designed and meaningful. When asked whether instructors provided models and examples of best practices, approximately 83% of respondents agreed. Eighty six percent of respondents considered that the context of the course was appropriate for adult education (Table 2).

Table 2

Participants' Perceptions of Communication and Interaction

Survey Item	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
Discussion board was an effective means of communication with instructors.	33.3%	42.9%	9.5%	14.3%	--
Discussion board allowed course participants to communicate with each other.	47.6%	42.9%	4.8%	4.8%	--
Discussion board reflection assignments were well-designed and meaningful.	40.0%	40.0%	10.0%	10.0%	--
The instructors facilitated the interaction of participants with each other.	38.1%	42.9%	9.5%	9.5%	--
Emails provided one to one communication opportunities with instructors.	65.0%	35.0%	--	--	--
The instructors provided models and examples of best practices.	57.1%	28.6%	9.5%	4.8%	--
The context of the course was appropriate for adult education.	52.4%	33.3%	9.5%	4.8%	--

In terms of getting prompt feedback, most participants (90%) indicated that the instructors regularly distributed deadlines. Ninety five percent of respondents found the feedback constructive (Table 3).

Table 3

Participants' Perceptions of Feedback Provided by POI Instructors

Survey Item	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
The instructors regularly distributed deadlines to encourage participants to submit assignments on time.	50.0%	40.0%	10.0%	--	--
The instructors provided prompt feedback on all assignments.	52.4%	33.3%	9.5%	4.8%	--
The instructors provided constructive feedback on all assignments.	50.0%	45.0%	5.0%	--	--

The overall experience of the faculty with the POI course was positive. The course met expectations of 75% of the participants. Seventy percent of the respondents indicated that the course provided them with the new methods and techniques for online teaching and the course enabled participants to improve their technological skills and pedagogical abilities for online teaching. Seventy-six percent of participants would recommend this program to their colleagues (Table 4).

Table 4

Participants' Perceptions of Experiences with the Course

Survey Item	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
The course was designed to accommodate different ways of learning.	30.0%	40.0%	20.0%	10.0%	--
The course offered new methods and techniques to become a better online instructor.	61.9%	28.6%	4.8%	4.8%	--
The course met my expectations.	55.0%	20.0%	5.0%	15.0%	5.0%
After the course, I improved my technological skills and pedagogical abilities to teach online.	52.4%	23.8%	14.3%	9.5%	-
My comfort level in the ability to teach online increased after the course.	40.0%	35.0%	10.0%	10.0%	5.0%
I would recommend this program to my colleagues.	52.4%	23.8%	9.5%	14.3%	4.8%

Qualitative Data

The qualitative data from the open-ended questions and discussion board reflections supplemented the quantitative data from the survey questions. Analysis of the qualitative data confirmed the quantitative findings that the majority of the participants found the POI course a valuable experience. The following comments demonstrate the overall satisfaction of the participants with the course experiences:

- “I am comfortable teaching online. I feel more competent than before POI.”
- “The course was exactly what I needed since I previously taught online. I was aware of the things that needed additional thought and particularly focused in on those parts of the course.”
- “I am teaching my first online this summer. All I can say is thank goodness I signed up for this class. I have learned so much and I feel that I will be able to manage my new course.”
- “This course allowed me to experience what students will experience in this environment.”
- “After taking this training, online teaching is no more a mystery for me. I am not a technology savvy person, but the classroom routine and design, homework policies; feedback aspects of this class have enabled me to teach an online class successfully.”
- “Overall, the course exceeded my expectations! Keep up the great work!”

Participants who were relatively new to online teaching and who had experience in online teaching both found POI beneficial. For inexperienced participants this course provided a foundation and framework for their future online teaching. One participant stated that POI was “a great starting point from which to speak about possibilities in designing or teaching a hybrid or online class.” The experienced participants indicated that this course added to their repertoire of skills and knowledge of online teaching. One of the participants commented: “I’ve taught online several times before so I was comfortable teaching online before the course. My goal was to update, enhance, and reflect on how to more effectively teach online. This course was exceptional in helping me accomplish this goal.”

When asked about the most beneficial aspects of POI, several participants pointed out the challenging assignments, in-depth instruction, and immediate feedback, encouragement of the course instructors, and the exposure to various types of instructional technologies such as Wikis for collaborative projects and Audacity for audio feedback. Some comments from the discussion board reflections revealed that participation in the course culminated not only in the enhancement of technological and pedagogical skills in online teaching, but also in an increase of the comfort level and confidence in delivering the courses online or teaching hybrid courses.

As for the least beneficial aspects of the course, some participants mentioned domination of the discussion board by a few verbose participants, a couple of challenging assignments, occasional overly positive feedback from the instructors, and repeated use of discussion board. In addition, some participants indicated that they felt overwhelmed being grouped with other participants who had more experience in online teaching, while others liked exposure to the backgrounds of experienced participants who were able to add examples and additional links to the discussion. One participant said, “I learned a lot from other more experienced instructors in this class.”

Alongside the very positive feedback given by the majority of the participants, a few participants provided some negative feedback:

- “This class was a challenge for me. I did not have a lot of time to complete the assignments and I had a hard time finding and understanding many of the assignments. Sometimes, I spent more time understanding what I should have to do than working on the assignments.”
- “The course was content lean. Lots of busy work, very little content, discussion board dominated and was not helpful at all.”
- “This course did not prepare me to teach online, but taught me how to take a course online. The methodologies are still unexplored.”

When asked about recommendations for improvement of the course, half of the participants suggested keeping the same timing, length, and content as the course was presented. Some participants recommended starting the course earlier in the semester, while other participants suggested lengthening the six-week course by two additional weeks and spread out the assignments. In spite of overall participant satisfaction, some useful suggestions were provided to the POI instructors to take into account for the future POI offering.

Conclusion

POI was a useful experience for the majority of the participants. Most participants were satisfied with the course content and delivery. They reported POI increased their technological skills and pedagogical abilities to teach online. Many participants also indicated that POI had intrigued them with new methods and techniques for online teaching by modeling attention to different learning styles and needs. Moreover, the POI instructors were praised for providing effective and high quality training opportunities and timely and valuable feedback and modeling the best practices of online teaching.

A few participants did not find POI appropriate for their level of experience, thus expressing concerns about their level of preparation to teach in an online setting after the course. For some participants, the timing of POI offering, which is in the middle of the semester, was not conducive to maximum participation, and the length of POI was unfavorable given the intensive course assignments. Furthermore, the need to cover specific topics more in depth was mentioned by some participants. With this caveat, according to the POI participants, the teaching center should continue to offer the POI course in the current format with some modifications. To ensure that the training course meets the needs of participants, it is suggested that the course instructors and/or the program managers offer a survey prior to the course to discover the needs and expectations of incoming participants. Furthermore, formative evaluations can help program managers make sure the course is constantly modified and improved to better prepare online instructors to be effective in the online setting.

Implications and Suggestions for Future Research

The research reported here confirmed some previous research findings on multiple perspectives. First, as stated by Pankowski (2004), the importance of technical and pedagogical support for online instructors cannot be overstated. It is suggested that when developing training programs, curriculum emphasis should be put on both technological and pedagogical aspects of online best practices (Ascough, 2002).

Second, in order to develop and sustain successful online programs, institutions should address the needs of online instructors in a systematic and comprehensive manner and employ different mechanisms to support instructors when teaching online. To start with, it is suggested that adult learning principles and practices be incorporated into faculty development training models (McQuiggan, 2007). One method could be assessing online instructors' need first before developing a training program. Another method could be conducting ongoing evaluations of a training program to identify strengths and improvement of the program to maximize a successful learning opportunity.

The results of the study suggested that institutions should offer various resources and develop support mechanisms to encourage instructors to not only learn about effective online teaching themselves, but also become front runners for their peers in effectively utilizing available resources and mechanisms. In doing so, university policies concerning online faculty professional development and training are more likely to lead to a sustainable model that fosters rigorous online learning programs. According to Wolf (2006), "effective distance education programs provide ongoing faculty support in the form of mentoring, shadowing, continuing education workshops, or some combination of all these" (p. 58).

As the demand for online courses necessitates the development of more instructors to teach online, carefully planned and implemented training programs for online instructors encourage greater participation and willingness to teach online. If higher education institutions invest in the professional development of their online instructors, chances are they will get dividends for many years to come in terms of extending students' educational opportunities.

Future research can investigate which methods and forms of training programs are considered most desirable and effective by online instructors in order to encourage them to adopt online teaching and develop necessary skill sets. Note that methods and forms of training programs often vary in different institutions because of their cultures, resources, and the nature of their student bodies, among other factors. While training programs such as POI have proven to be effective in transferring skills, organizations need to provide ongoing support to instructors after training.

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