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A Faculty Development Handbook for Quality Online Instruction

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A Faculty Development Handbook for Quality Online Instruction

by

Joan Carol Frese

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in
Computing Technology in Education

Graduate School of Computer and Information Sciences
Nova Southeastern University

2006

We hereby certify that this dissertation, submitted by Joan C. Frese, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirements for the degree of Doctor of Philosophy.

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An Abstract of a Dissertation Submitted to Nova Southeastern University in Partial
Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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The offering of online classes has been growing at an incredible rate. Many institutions coerce their instructors into teaching online classes even if they are not prepared. If teachers are unprepared when they teach, there is a negative effect on the students and can jeopardize the reputation of the institution.

In order to teach over the Internet, instructors need to learn new competencies. Students in online classes are usually not traditional students. In addition, there can be miscommunication in online classes, because there are no visual cues. Instructors need to learn new communication strategies as well as teaching strategies for reaching the online student.

The goal was to determine the specific training needs of college online instructors and to incorporate the findings in a faculty development handbook for quality online instruction across the curriculum. A search of the literature was completed and a survey was given to hundreds of online college instructors. The survey revealed what instructors believe is important in the training process and which specific skills were needed but not taught to them. Open-ended questions allowed the sharing of practical advice.

An expert panel of experienced online instructors reviewed the survey before it was administered. They then reviewed the handbook contents to make sure it was worthwhile and relevant. The handbook, built into the concluding chapter, is generalizable to all instructors who teach online classes for a college or university. The practical strategies compiled from hundreds of experienced online instructors can be invaluable to new online instructors.

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Chapter 1

Introduction

Problem Statement

There has been an explosive growth in the offering of online classes at the post-secondary level in the last decade, and it does not seem to be slowing down. The evolution of the Internet and broadband access at home makes it likely that there will be a continuing growth in online classes (Carnes, Awang & Marlow, 2003; Goodyear, Salmon, Spector, Steeples, & Tickner, 2001; Lewis & Blair, 2003; Quilter & Weber, 2004).

As colleges and universities add more online classes, the administrators often pressure instructors to teach those classes, even if the instructors are unprepared (Smith, Ferguson & Caris, 2002). Sometimes online courses are added for financial reasons and the instructor's training needs are not well thought through. The result could jeopardize the reputation of the institution (Donar, 2004).

Universities want to provide quality education whether it is online or face-to-face, and need to ensure that online classes do not compromise the quality (Carnes, et al., 2003). There are many skeptics who question the quality of online teaching and therefore it is necessary to identify how to prepare instructors for teaching online classes (Quilter & Weber, 2004). Instructors of online classes need hardware and software training, but also need to be taught specific online teaching methods so that they will know how to effectively teach quality online courses (Donar, 2004; Kearsley, 2000; Smith, 2005).

The problem identified was that many instructors are inadequately prepared to teach web-based college classes. The success of online learning depends on instructors acquiring new competencies that are needed to work with students entirely online (Salmon, 2003). Universities need to determine what objectives should be set for the training, how instructors should be trained, and what kinds of on-going follow-up support must be available. An in-depth analysis of online training needs was recommended (Goodyear, et al., 2001).

Goal

The goal of this dissertation was to write a faculty development handbook for online instructors. The methods prescribed in the handbook were developed through extensive literature review and the results of survey responses from almost 300 college online instructors. A panel of expert online instructors evaluated the survey before administration and the handbook before publication as part of the dissertation.

The handbook, while based on a needs assessment of California colleges, should be generalizable to all instructors who teach online classes. There are training programs available to prepare instructors for teaching online, but there is a lack of consistency in objectives and content among colleges and universities who offer training. Currently in California, instructors are able to take training classes through Cerro Coso Community College to prepare for teaching online. These classes are offered in an online format. The training at Cerro Coso leads to a Certificate in Online Teaching. That training offers good technical information and experience as a student taking online classes, but it lacks the practical aspects of teaching online classes. This study completed a training needs

analysis and identified training that was lacking. It asked experienced online instructors what they needed to learn on their own.

Instructor training should build on previous models and the experiences of other instructors. This study established what needs to be taught to online instructors based on the experiences of those who teach online. It identified specific areas where instructors need to be trained, based on a needs assessment from the literature search and surveys. It also gives practical tips for online instructors based on instructors' experiences. The study focused on instructors at two-year and four-year colleges and universities in California. In addition, it was restricted to online classes in which the instructor was responsible for all aspects of design and delivery.

The initial report for this study summarized the problem and the preliminary review of the literature. Next, the email addresses were obtained and the survey was administered. A broader literature review was completed during the time the survey was being given. Finally, the results of the survey were summarized and the findings presented.

Significance and Relevance

There are specific skills and instructional strategies for an online environment that are different than for a traditional classroom (Palloff & Pratt, 2001; Waterhouse, 2005). Students in online classes read words in isolation and communicate non-verbally. Non-verbal communication can lend itself to coolness and lacks the warmth of face-to-face communication. The learning communications that must occur in an online class can be a challenge because of the lack of face-to-face cues (Lewis, 2000; Ryan, Scott, Freeman,

& Patel, 2000). Instructors have no direct feedback to gauge the clarity of their communications (Yang & Cornelious, 2005). Belanger and Jordan (2000) concur that problems can arise from not conversing face-to-face because the instructor may not be effective in explaining a complex problem, or there may be other miscommunications. Student to student communication is also prone to difficulties because of the lack of cues on which people usually rely. Body language and voice intonations cannot be observed, so communications may be misinterpreted (Lewis, 2000; Morris, 2002).

There is a different pedagogy or method of teaching, sometimes referred to as e-pedagogy, which applies to the e-learning environment. E-pedagogy can help overcome some of the problems such as miscommunications that arise in online classes. It is not the technology that provides the power of online learning but rather the instructor must learn how to use it creatively. Many instructors are ready to change their teaching methods and implement effective online strategies, but they must be trained (Waterhouse, 2005). Instructors cannot be expected to know intuitively how to effectively teach online, and many instructors are being thrust into teaching online without any guidance or training (Palloff & Pratt, 2001). These new teaching methodologies are essential, and because of the growth in online education, it is vital that the training needs be identified now. This study will help clarify the training needs and will give suggestions for improving professional practice in the art of teaching online.

Research Questions

1. What are the scopes and sequences of existing training programs that prepare instructors to teach online?
2. What have experienced online instructors found lacking in their preparation?
3. What do online instructors report that they had to learn on their own?
4. What are the new competencies that online instructors need to acquire?
5. Based on a needs assessment through surveys and research of the literature, what should be included in a faculty development handbook to prepare and support instructors for online teaching?

Barriers and Issues

Few barriers were anticipated as the study was developed and implemented. However, some instructors may be unwilling to teach online classes even if faculty development training is offered. Some reasons might include lack of institutional support to provide incentives for instructors to teach online classes, concerns about intellectual property rights, ownership and instructor control, and a perception that face-to-face instruction is more satisfying.

The population for this study was instructors who have taught online classes for a California college. The California Virtual Campus (CVC) is a website that lists the online classes offered by most higher education institutions in the state of California. The CVC does not offer degrees nor does it offer courses. It is a portal site only that gives students access to the individual colleges so they can register for the online classes. The website includes 138 private and public colleges and universities. There are

approximately 2,000 online instructors available through the course offerings on the CVC website (CVC, 2005). For descriptive research, the sample should be 10% to 20% of the population (Gay & Airasian, 2003). According to Salant and Dillman (1994), if the population size is 2,000 a return of approximately 266 surveys would be needed for a 95% confidence level. All the email addresses obtained were targeted in order to ensure that there would be at least 266 acceptable and usable responses. Non-response can be a serious problem in survey research. Multiple contacts can be used which serve as reminders to complete the survey, and incentives are also helpful (Salant & Dillman, 1994). This study used multiple contacts to improve the response rate. Also, participants were informed that they would receive the results of the study as an incentive to complete the survey.

One major issue in terms of accruing value to the findings is that institutions must be willing to invest funding necessary to implement faculty development and support. The key to successful web-based education is adequately training the instructors. Faculty must be taught how to adjust to their new roles in the online environment (Lynch, 2002). Institutions need to support instructors in the design, development and implementation of online courses. Instructors need support from a range of people within their institutions (Bennett & Lockyer, 2004). Faculty development, in order to be effective, should be formalized, structured, and goal oriented, and the institution should put a high priority on faculty development (Kelley, 2002). Institutional support is very important, and finances will need to be expended in the areas of student support facilities, equipment, and training (Melton, 2002).

Limitations

A limitation is some aspect of the study that the researcher knows may negatively affect the results or generalizability of the results but over which he or she has no control (Gay, 2003). Survey research is limited to what respondents are willing to tell researchers (Fowler, 2002). Because the questions asked in the survey did not include sensitive information, the respondents were usually willing to provide the information requested. It is possible that only online instructors who cared responded to the survey. The results in that case may not be representative of all online instructors. No limitations were anticipated, and the results should be generalizable to all instructors who teach online. The survey did indicate areas where training is important and it obtained ideas and suggestions from those who participated in the survey.

Assumptions

It was assumed that experienced online instructors were able to identify their own training needs. It also assumed that the respondents understood the questions and would take the time to answer the open-ended questions regarding their own personal experiences. In addition, it was assumed that the participants would respond to the questions honestly.

Definition of Terms

Definitions for some of the terms used in this study are listed below.

Andragogy: The art or sciences of helping adults learn along with related principles and instructional strategies (Knowles, Holton & Swanson, 2005; Waterhouse, 2005).

Asynchronous Communication: Communication that occurs in different places at different times. Those participating in a discussion do not need to be online at the same time. Participants can read messages and post replies at their convenience (Picciano, 2001).

Class Forum: A class forum is a threaded discussion (asynchronous communication) where students do not need to be online at the same time, but can read and reply to messages at their convenience (Iverson, 2005).

Course Management System (CMS): Software what enables instructors to create, manage, and administer learning usually over the Internet. An example is Blackboard. This term is usually synonymous with Learning Management Systems (LMS) (Waterhouse, 2005).

CVC: The California Virtual Campus. A website where students can find classes being offered in an online format for most of the colleges and universities in the state of California (CVC, 2005).

Database Driven Website: A website that interacts with a database, so that information entered in a form on the website will automatically be entered into a database (Author).

Distance Education: Distance education is a general term that includes all types of learning where the learner and instructor are separated physically from each other (Jury, 2004).

E-Learning: E-learning is teaching and learning that is enhanced by technology or the Internet (Waterhouse, 2005). For this study it will be synonymous with online learning.

E-Learning Pedagogy: Pedagogical principles and related instructional strategies applicable to an e-learning environment (Waterhouse, 2005).

E-Moderator: An e-moderator is an electronic moderator. It is a person who presides over an electronic online discussion (Salmon, 2003).

Faculty Development: Training programs planned to help instructors improve their teaching practices (Palloff & Pratt, 2001).

HTML (Hypertext Markup Language): A language that uses code to format the contents of web pages. Web browsers such as Internet Explorer interpret the code so that users can view the web pages on the Internet (Author).

Hybrid Classes: Hybrid classes combine both traditional and online teaching and learning. It is sometimes referred to as a blended delivery mode where the web is used to enhance face-to-face learning (Waterhouse, 2005).

Learning Management System (LMS): Software what enables instructors to create, manage and administer learning usually over the Internet. An example is Blackboard. This term is usually synonymous with Course Management Systems (CMS) (Waterhouse, 2005).

Online Learning / Teaching: Learning or teaching that takes place over the Internet. It is a synonym for web-based learning or teaching (Jury, 2004). For this study, online learning or teaching is characterized by students and the instructor being geographically separated with communication taking place asynchronously (Author).

Pedagogy: The art of teaching. The principles and instructional strategies related to good teaching (Waterhouse, 2005).

Portal Site: A website that lists and gives links to other sites on the Internet (Author).

Spam: Junk email. Spam is usually email that is sent for advertising purposes. Many filters identify any emails that are sent in bulk as spam (Author).

Synchronous Communication: Participants are online at the same time. It takes place in real time, and includes chat rooms as well as Instant Messaging (Picciano, 2001).

Threaded Discussion: A threaded discussion is a type of asynchronous communication. Usually each thread is a new topic. Students can read and respond to the messages in each topic thread and do not need to be online at the same time as other students (Waterhouse, 2005).

URL: Uniform Resource Locator. The address of a resource on the Internet. For this study, a website was created for the survey and potential participants were emailed a link to the URL of the survey (Author).

Web-based learning / teaching: Learning or teaching that takes place over the Internet. It is a synonym for online learning or teaching (Jury, 2004). For this study, online learning or teaching is characterized by students and the instructor being geographically separated with communication taking place asynchronously (Author).

Summary

More online classes are offered each year at the college and university levels. In order to preserve the quality of those classes and the institution as a whole, the online instructors need to be adequately prepared to teach those classes. A complete needs analysis to find out exactly what instructors need to know before they start teaching an online class had been recommended.

The goal of this study was to carry out a training needs analysis through a search of the literature and through a survey given to hundreds of online college instructors. The results identified the specific skills and competencies that are required of online instructors, as well as specific teaching strategies that work best for students taking classes online. A faculty development handbook to prepare instructors for teaching online was developed and reviewed by an expert panel of experienced online instructors.

Chapter 2

Review of the Literature

Overview of the Literature Review

The purpose of the literature review is to find out what is already known in the area of online faculty training needs. Literature reviewed did not reveal any studies that completed a thorough needs analysis of the training. Major areas emerged through the literature review, and this study focused on five main areas which are listed below.

1. **Growth of Online Education:** A general discussion of why online education is growing and some of the advantages of online education. It also includes some of the repercussions of teaching online before being prepared.
2. **Administrative Support for Online Instructors and Students:** A discussion of the need for administrative support for both instructors and students. Support in the areas of incentives, training, and ongoing technology support are discussed.
3. **Faculty Development:** A discussion about the importance of quality faculty development programs. Offering training in an online format is also discussed.
4. **Areas where Instructors need Training:** The specific areas where faculty need training are detailed which include (a) converting classes to an online format, (b) creating a syllabus, (c) meeting the needs of the online learner, (d) facilitation and moderating skills, (e) asynchronous communication skills, (f) creating assignments, and (g) creating assessments.

5. Ensuring Quality: A discussion about factors that influence the quality of online education. Specific areas include (a) training, (b) mentors, (c) active learning strategies, (d) faculty forums, (e) part-time instructors, (f) student feedback, (g) administrative reviews, and (g) class size.

Growth of Online Education

There has been a huge growth in the number of courses being offered online over the last few years, and most schools want to offer even more (Quilter & Weber, 2004). The growth can be attributed in part to three factors which include the drop in prices of personal computers, the widespread availability of Internet access, and improvements in software tools to develop e-learning resources (Waterhouse, 2005).

Web-based instruction is not only growing, but it is here to stay (Brooks, Nolan & Gallagher, 2001). The classes expand opportunities for students because of the flexible interactive format. Online classes can more easily accommodate a student's life style needs, and enable students to become lifelong learners. (Carnes, et al., 2003). Online learning is growing because it can offer advantages. In addition to reaching a large and diverse audience, instructors can quickly and easily give feedback to students (Hoskins & van Hooff, 2005).

Those who have taken online classes know that they are not like correspondence courses, but rather demand more work than a correspondence or traditional class. Most online classes have a significant discussion component of the class (Heberling, 2002). It is difficult to compare traditional and online courses. Not only are the class formats different, but many times the students themselves are different as well (Jury, 2004).

Because online learning has changed the way education is designed and delivered, it requires new forms of teaching which can be a challenge (Kearsley, 2000).

Sometimes there is pressure from administration on faculty members to incorporate distance education technology into classes even if instructors are unprepared (Grant, 2004; Smith, et al., 2002). Some instructors are reluctant to teach online because their training is inadequate, and they feel they will be expected to do it all on their own. Training teachers in the new way to teach online is essential (Levy, 2003). Because colleges and universities are adding online classes without thinking through the training that needs to come first, they may be jeopardizing their reputation (Donar, 2004).

The growth in online education is moving many instructors toward teaching at least one class in an online format (Bennett & Lockyer, 2004). It is predicted that there will be a large demand for online instructors in the future (Goodyear et al., 2001; McIsaac & Craft, 2003). Since developing online classes is a new role for instructors, there are important issues to consider such as compensation and ownership (Berg, 2002a). In addition, instructors who design online courses must have training and technical support in hardware, software and troubleshooting (Carnes, et al., 2003).

Administrative Support for Online Instructors and Students

Administrative leadership and support is needed for online instructors. Instructors cannot work effectively if they do not have the needed support, and all levels of administration must work together to share a vision for the direction of online activities at an institution (Lee & Dziuban, 2002; Porter, 2004). Administrators may plan an online program, and instructors may develop an individual course, but instructors need to see

how the courses fit together into programs within one or many disciplines.

Administrators should work closely with instructors through the process of developing courses as well as making sure they have incentives and support (Porter, 2004). There can be internal conflict between faculty and administrators, but organizations are in a better position to succeed if they can minimize the internal conflict and share a common goal (Carchidi, 2002).

Instructors should feel excited about the new way of teaching and learning online. They will go the extra mile and stretch their learning and skills if they are excited. Instructors must have an intrinsic motivation, but extrinsic motivation such as extra compensation also helps. If instructors do not feel they are being supported by administration they will not have that motivation and excitement (Morris, 2002).

In order for online programs to succeed, the administration must provide support at the department level as well as higher levels within the institution. The administration must provide funding as well as programming resources and technical support (Dahl, 2003). Many colleges have implemented faculty development centers that offer instructional support and workshops. The support may include course redesign for online classes, training in the use of technologies such as media, and also technical support (Grant, 2004).

Technical support is critical because instructors need to have training for designing, developing and implementing online courses as well as technical support on an ongoing basis (Barker, 2003; Bennett & Lockyer, 2004; Levy, 2003). Institutions should set policies and procedures for online classes (Carnes, et al., 2003) and it is also important for the administration to invest in a reliable infrastructure (Carnevale, 2003).

A poor tennis player will not become a good tennis player with a new tennis racket. The tool must be used correctly. Many times administration finds the money to buy the new tools for online classes, but neglect training in how to use the tools. Administration needs to put a high importance on teaching instructors how to use the tools to become good online instructors (Moore, 2004).

Administrative support is also important for the online student. Students should have access to course textbooks, libraries, and technical support (Bollinger & Martindale, 2004). Online students expect technology-based administrative support to go along with taking the online classes. Students should be allowed to drop, add and pay for classes without going to the campus (Carchidi, 2002).

The goal of online education should be to have positive learning outcomes for the students. If instructors have positive attitudes toward online delivery of classes, then students will also have higher positive learning outcomes. Part of instructors' attitudes depends on the support that is given to them by their institution. If an institution has good training and support in place, then it is more likely that the instructors will have a positive attitude which in turn can help the students have positive learning outcomes (Yang & Cornelious, 2005).

Faculty Development

Faculty development to teach instructors how to handle an online class is important and should be an ongoing process with continual training (Aisami, 2004; Barker, 2003; Dahl, 2003; Grant, 2004; Lee & Dziuban, 2002; McIsaac & Craft, 2003).

Effective training must be put in place otherwise the outcomes of online education may be unsuccessful. Instructors are not born with the skills needed to teach online, and careful planning and preparation should go into the development process. A half-day faculty workshop will not be enough to prepare instructors to teach online (Salmon, 2003).

It is not easy for most instructors to make the transition from dispensing information to facilitating it. Much more time is needed for course start-up and management, and instruction needs to be more precise with no ambiguities (Lee & Dziuban, 2002). Instructors need to learn new skills and teaching practices for teaching online, including developing a new learning environment, making sure that there are student support strategies in place, and maintaining student motivation (Bennett & Lockyer, 2004; Palloff & Pratt, 2001). Instructors need to be educated in the skills needed to adapt their classes to an online format, and they need to acquire additional facilitation methods for teaching in the online environment (Donar, 2004). Teaching an online class can be more difficult because the instructor cannot see if he or she is losing the attention of the student or see if the students are confused (Farrell, 2001).

Before faculty development programs are started, it is important to get the support and enthusiasm of the instructors. Because instructors are concerned about quality and student learning in online courses, the faculty development programs should be based on sound educational theory and should also include both instructional design and technology (Barker, 2003). In addition, professional development programs may include active learning with collaborations including discussions, brainstorming and faculty networks, as well as compensation or recognition (Grant, 2004). Kelley (2002) agrees

that there should be some reward or recognition for the training, and also states that the training should be formalized, structured and goal oriented.

Offering the training in an online format can help prospective online instructors learn from the vantage point of a student (Carnevale, 2003; Glapa-Grossklag, 2005; Kearsley, 2000; Kelley, 2002; Yang & Cornelius, 2005). Training online allows instructors to feel the same uncertainty and anxiety that students may experience (Smith, 2005). According to Glapa-Grossklag (2005) there is a higher success rate for online students if the instructors learn how to teach online from both the student and instructor perspectives. Lee and Dziuban (2002) also found that it is helpful if instructors have training with both face-to-face and online components.

Offering the training online has more advantages. Most online instructors start teaching with little experience in moderating or facilitating which is required for online classes. These skills can be developed over time, but can be developed faster if the teacher has experience as a student in an online environment (Kearsley, 2000). The online training format also offers more flexibility, because faculty members each have different schedules and it is not always possible for instructors to meet at a certain time and in a certain place. Another benefit is that instructors learn how to use the technology in the process of taking the training online (Kelley, 2002).

Planning a faculty development program requires identifying what needs to be taught through a needs analysis. Input from the instructors is important, because they may have suggestions regarding the activities (Picciano, 2001). An analysis of the roles of the online instructor is also important (Bennett & Lockyer, 2004). The role of the instructor is changed in an online class, because the technology medium dictates that the

environment be more learner-based rather than teacher-based (Stammen & Schmidt, 2001). In addition, the competencies needed to teach in a distance education program need to be identified. Competencies may be comprised of the skills, knowledge and attitudes needed by online instructors (Williams, 2003).

Faculty development programs should be evaluated and reviewed, and participants should make suggestions for improvements. Staff training should be a continuous process because the technologies keep changing (Picciano, 2001). A more in-depth analysis of specific techniques used by online teachers needs to be completed (Goodyear, et al., 2001).

It is recognized today that quality staff development is necessary in order for students to achieve at high levels (Zimmerman & May, 2003). Schools are only as good as the instructors who work for them, and professional development must ensure that instructors are highly qualified (Guskey, 2003). First time online instructors need a lot of support and help; many do not feel they are adequately prepared (Lewis & Blair, 2003). Rittschof and Griffin (2003) found that lack of instructor training for teaching online classes is one of the limitations of online college courses.

Areas where Instructors need Training

Major areas of competencies in which online instructors need to be trained surfaced while reviewing the literature. The areas include converting classes to an online format, creating a syllabus, meeting the needs of the online learner, facilitation skills, asynchronous communication skills, creating effective assignments, and creating

assessments including how to prevent cheating and plagiarism. Each area is summarized below. It should be noted that even though the literature points to some of the competencies that online instructors need, no comprehensive objectives for a faculty development training program were found. This study will delineate those objectives.

Converting Classes to an Online Format

Instructors should be educated in the skills needed to design and adapt their classes to an online format (Bennett & Lockyer, 2004). It is important to train instructors how to create a well-organized course site as well as how to translate course content for online delivery before the class begins (Smith, 2005). There are differences between online and traditional classes which can cause uncertainty for instructors, because they need to develop a completely new learning environment (Bickle & Carroll, 2003; Donar, 2004; Kearsley, 2000; Palloff & Pratt, 2001; Quilter & Weber, 2004).

Putting a class online does not mean that the instructors just take the same lectures and syllabus and put them on a website (Ko & Rossen, 2001). Instructors can not just recreate their face-to-face classes. Even if course content is identical, the delivery will vary a lot (Lewis & Blair, 2003; Picciano, 2001). Instructors of online classes must rethink their traditional classroom instruction methods for teaching online rather than just converting classes to an online format (Guidera, 2003; Weller, 2002). If instructors do just convert their courses to online, then they may only be automating teaching strategies that will not work online (Berg, 2002b).

Students in an online class may be different than in a traditional class. They are more likely to be adults and therefore it is important to integrate learning and work, and

make sure there is flexibility of time, place and individual needs. Just implementing technology into education is not the solution (Kirschner, 2004). Instead, online learning should add depth to the learning experience by encouraging critical and reflective thinking (Weigel, 2002).

To design an online course, the overall goals must be established as well as the outcomes. The course objectives must be stated in measurable and observable terms. A strategy should be laid out as to how to address those objectives (Aisami, 2004).

Teachers need to customize instruction so that there are student-centered tasks (Hedberg, 2003).

In order to reduce anxiety, students should know the goals and objectives of the class at the beginning of the course (Bollinger & Martindale, 2004). Also, at the beginning of an online class an introductory welcome message should be posted to reassure students that they are in the right place. The students should be provided with a summary of assignments, due dates, and quiz and exam information in advance. Cooper (2000) suggests giving students a calendar with weekly assignments, activities and assessments to keep the students on track.

Stating the class expectations allows students to drop at the beginning if they see that they are not a good fit for the class (Bickle & Carroll, 2003). An ongoing announcement area allows the instructor to give information to all students quickly, to remind students of due dates, give clarification to assignments, give technical information or just to encourage and give news about students in the class (Waterhouse, 2005). One suggestion is that every Friday the instructor sends the class an announcement to go over the upcoming week's activities as well as discuss any student concerns (Cooper, 2000).

Good online learning requires considerable time in preparation. The outcomes are affected by the design of the course, the way it goes onto the Internet, and the manner in which the students access and interact with the content (Maeroff, 2003). Most people believe that online classes are more work for the instructor because lectures need to be put in an online format, and the class must be well planned in advance so that resources and materials are on the class website at the beginning of the class (Carnes, et al., 2003; Orde, Andrews & Awad, 2001). Greater time may be needed to initially create the resources because they must capture the guidance that the teacher would provide in the classroom, and they must be completely accurate with no room for ambiguity. The resources must be made so that students can work on their own with little help from the instructor (Abramson, 2003a; Bennett & Lockyer, 2004). It may take more time to grade assessments if instructors use essay tests to avoid cheating. Also it takes more time to read the communication of the students, because the students produce a greater quantity of class participation through the threaded discussions (Shedletsky & Aitken, 2001; Stammen & Schmidt, 2001).

The time needed to develop an online class, however, should take other factors into consideration. The online experience of an instructor is one factor. Once an instructor has already developed an online class it is easier to develop another online class, and lectures and assignments that have been created may also be reused. Another factor is the instructor's abilities with technology. If an instructor is uncomfortable with technology, then it may take longer for the instructor to develop an online class. Online classes generate a greater demand for individual attention, however, because it takes time

to answer each student's questions and requests. The instructor workload, therefore, should be based on the number of students (Abramson, 2003b).

There is a lot to consider when converting a traditional class to an online class. In addition to the above considerations, the website itself must be easy to navigate, and must be accessible to all students, even those with disabilities (Levy, 2003). The navigation of the site should be intuitive, and students should easily find their assignments (Morris, 2002). The site should accommodate students with visual impairments where a screen reader is used. Videos should have captioning to accommodate those with hearing problems, and consistent use of color and organization should be used to help students with aphasia and other disabilities. Instructors should be trained about different handicaps that they may encounter. There are tools available that can check websites for accessibility, and instructors need to be made aware of those tools (Pearson & Koppi, 2003).

As already stated, it will take instructors more time to create an online class for the first time, and they should be trained for the process. More research needs to be conducted in the area of faculty workload for developing and teaching online courses (Bender, Wood & Vredevoogd, 2004).

Creating a Syllabus

The course syllabus is a very important document because it is a contract between the instructor and the student. It should spell out specifically the terms and conditions, course expectations and policies (Aisami, 2004; Farrell, 2001). The syllabus should include a course description, goals, objectives, expected outcomes as well as readings,

activities, assignments, grading policies, and requirements for participation (Ko & Rossen, 2001). The syllabus should be posted by the first day of class, and should remain posted for the entire semester. The instructor needs to clearly state what the learner is expected to perform. It should describe to students how to obtain the textbook and other course materials (Bickle & Carroll, 2003). The syllabus should also list office hours, guidelines for posting messages, a list of students in the class, and how they should communicate online. Students also need to be informed of the computer skills necessary to take the class (Carnes, et al., 2003). Specific office hours lets the students know when they can immediately reach the instructor (Cooper, 2000).

The syllabus is critical because it is usually the first thing that will guide the student. The online syllabus needs to be more definitive than a traditional syllabus, because the students are not present to get clarification from the instructor. It should also introduce the instructor and give contact information. Posting a picture of the instructor with some background information helps students feel more comfortable because there is the face of a real live person with hobbies, and interests. In a traditional class, the first day the instructor may excite the students by letting them know what they will be learning. The syllabus in an online class must accomplish the same task. Course assignments should also be explicitly delineated in the syllabus so that students can have the flexibility to plan their schedule. In addition, grading policies should be included in the syllabus including the weighting of assignments, policy for late submissions, and participation in discussions (Bickle & Carroll, 2003; Farrell, 2001; Morris, 2002).

Meeting the Needs of the Online Learner

Often, online learners are different from those who take face-to-face classes, and may need flexibility because of work schedules and other commitments (Bickle & Carroll, 2003; Bennett & Lockyer, 2004; Palloff & Pratt, 2001). A study by Shea, Motiwalla and Lewis (2001) reported that almost half of distance education students are adult learners. Online programs attract working professionals who want to go to school part-time to advance their careers. Others who take online courses are executives who travel frequently and parents who want to take classes and still be at home for their children. Many of those students would not be able to attend school if online education and the flexibility it provides were not available (Carnevale, 2003; Farrell, 2001; Heberling, 2002; Lee & Dziuban, 2002).

Lifelong learning has become the norm, and distance learning can fill that need to provide the education because it appeals to different types of students with different needs (Picciano, 2001; Weller, 2002). Adult learners usually assume responsibility for their learning and want immediate application of learning with relevant tasks as well as interactive and collaborative learning (Donar, 2004; Inman & Stuehrk-Corrigan, 2001; Jury, 2004).

Adult learners are usually internally motivated and have different interests than younger students. Adults want an immediacy of applications and a sharing of life experiences. They also prefer independence and self-direction and ownership of their own learning. Adults value options, variety and self-directedness. They prefer authentic learning situations where their life experiences can be brought into the learning situation. Adults also place a high importance on communication with fellow students and the

instructor. Facilitating adult learning is referred to as andragogy (Abramson, 2004; Ausburn, 2004; Knowles, et al., 2005).

Online instructors must be made aware of the characteristics of online learners and be trained in appropriate teaching methods (Ausburn, 2004; Donar, 2004).

Constructivism is the most common learning approach in online courses. Constructivism is an education philosophy founded on the premise that by reflecting on our experiences we construct our own knowledge and understanding of the world. Learning takes place when we construct, interpret and modify reality based on engaging experiences (Hedberg, 2003; Iverson, 2005).

Constructivist views can be applied to online learning environments, including: learning should be active, learning is a process of constructing knowledge, learning is focused on thinking skills rather than looking for the correct answer, and learning should involve socialization. Learners who examine the ideas from the different perspectives of multiple participants usually gain a better or deeper understanding of the issues. Collaborating with other students can cause students to challenge their own beliefs and perceptions and help them in the learning process (Hedberg, 2003; Murphy & Cifuentes, 2001). With constructivism, the instructor facilitates the learning process. It should be noted, though, that the constructivist approach can be a smokescreen for poor teaching if the instructor just lets students come to their own conclusions. The students may get frustrated. Instructors need to be taught how to facilitate as well as guide the learning (Weller, 2002).

In order to accommodate all learning styles, the instructor should offer instructional materials in different types of formats. Examples are PowerPoint

presentations, automatically graded practice exams and links to interactive web sites. Another suggestion is to provide videos of the face-to-face class lectures (Cooper, 2000).

Facilitation and Moderating Skills

Instructors must learn new techniques to motivate students in the online environment. The instructor becomes a facilitator of learning, rather than a lecturer (Brooks, et al., 2001; Carnes, et al., 2003; Donar, 2004; Lee & Dziuban, 2002; Maeroff, 2003; Smith, et al., 2002; Weller, 2002). It is important for instructors to facilitate online activities that support student learning (Goodyear, et al., 2001). The instructor needs to facilitate understanding by creating appropriate experiences and allowing students to reflect on the experiences (Hedberg, 2003). The instructor should also encourage dialogue between students to promote critical thinking. Most instructors find that the discussion in an online classroom is richer than that in a traditional class. Instructors do not need to respond to each student in the class forum, but instead should learn how to summarize the discussion and have students analyze and synthesize arguments (Barker, 2003; Salmon, 2003; Weigel, 2002).

The instructor sets the tone for online classes with the communication tools (Moore, 2004). Online instructors need to learn how to establish a comfortable interactive environment online. For example, students could post a personal greeting message the first week to help get acquainted with each other (Bickle & Carroll, 2003; Quilter & Weber, 2004). Discussion groups or learning communities may be formed if the class is large. Collaborative activities should be set up so that students can work together at different times. The instructor should monitor groups to make sure that all

students participate (Bangert, 2004; Bennett & Lockyer, 2004). Instructors should establish rules for student participation and netiquette rules should be discussed to make sure that the forums are respectful. Instructors should monitor the discussion and participate only when needed. Separate discussion areas can be set up for students to communicate casually (Abramson, 2004).

Collaborative learning is not intuitive, and students should be taught how to collaborate through the guidance of the instructor (Murphy & Cifuentes, 2001). Instructors should be trained how to cultivate and nurture virtual teams and also how to weave student contributions into a coherent big picture. In addition, instructors should be taught how to promote intellectual curiosity and how to help students think critically by encouraging student dialog and using problem solving activities. Instructors should then summarize and give feedback (Salmon, 2003; Weigel, 2002).

Frequent positive feedback from the instructor is essential. Student satisfaction is tied to the amount of feedback they receive from the instructor (Moore, 2002). Students cannot see the instructor; therefore the only way they know if they are performing as expected is through feedback. Timely feedback helps to encourage students to participate in the class (Farrell, 2001), and according to Arbaugh (2004), the first-time online student needs more focused attention from the instructor. It is a responsibility of online instructors to be available outside the traditional on-campus hours so that students can receive the guidance that they need (Lewis & Blair, 2003).

The learner-facilitator interaction helps to stimulate the learner to succeed. The roles of a facilitator are important because just the act of placing students in groups does not ensure effective collaboration. The instructor needs to set clear goals, explain the

process, and carefully monitor the communication (Iverson, 2005; Kearsley, 2000). The online instructor should moderate discussions to ensure that students are participating and interacting. Moderating involves encouraging students to participate in the discussions and other activities, as well as making sure that some students do not dominate (Kearsley, 2000; Salmon, 2003). Instructors should maintain momentum in the class by mandating participation and directing the discussion (Smith, 2005). Instructors must keep the discussions focused on the topic and summarize and synthesize the discussions. Instructors should pay attention to the patterns of interaction and dynamics between students, and grade the quality of participation (Kearsley, 2000; Salmon, 2003). If discussions are required and graded, then students are more likely to participate (Moore, 2002).

An online instructor needs to be an electronic moderator (e-moderator) and should promote interaction and collaboration through modeling proper behavior (Salmon, 2003; Smith, 2005). Online education is very purposeful, and students need goals as well as praise and constructive critiques. The main role of the e-moderator is to engage the students so that they can construct the knowledge. The e-moderator also needs to keep track of the participation (Salmon, 2003).

Sometimes instructors in an online course act like regular instructors, but other times they are more like mentors or tutors. With online learning it is important to engage students, to respond to their needs, and to ensure that students understand the coursework. Overall, teaching online means less emphasis on presenting information and more on helping students (Kearsley, 2000; Maeroff, 2003). Students are less likely to drop out of online classes if the instructor provides time and quality of attention (Abramson, 2003a).

Asynchronous Communication Skills

Interpersonal communication is essential in any class. In an online class there are two main types of interpersonal communication that take place asynchronously which is not face-to-face or real time. First there is individual communication between the student and instructor that is usually through email. The second is student-to-student communication usually through asynchronous threaded discussions where students can post messages and read and reply to other messages at a later time. Students can feel isolated and frustrated if communication is missing in an online class, and weekly discussions are encouraged (Bollinger & Martindale, 2004; Farrell, 2001; Jury, 2004).

The communication between an instructor and student in an online class is personal and the student can feel like the instructor is taking a personal interest in their learning. Students often get to know their online instructors better than their face-to-face instructors. Therefore, instructors need good communication skills. For example if an instructor writes an email that is short and to the point, the student may misinterpret it and feel like the teacher is uncaring (Morris, 2002).

Interaction is taken for granted in a classroom, but in an online class it becomes vital. Online classes need interactivity to make them more than just information displayed on a computer (Darnell & Rosenthal, 2000/2001; Maeroff, 2003; Smith, 2005). It is surprising the extent to which interpersonal relationships can develop in an online class (Moore, 2002). Students should be required to post a short greeting message on an asynchronous forum at the beginning of an online course. The assignment allows students to learn the process of posting messages. It also allows students to get

acquainted and it sets a comfortable atmosphere (Bickle & Carroll, 2003; Carnes, et al., 2003; Lee & Dziuban, 2002). Daily communication is a big part of building a successful learning community because the learners need to know that someone is out there and will help them. Through communication, online instructors need to prod, acknowledge, praise, motivate and give a personal touch (Porter, 2004).

Student discussion is essential in college classes because the conversational interactions help students to learn (Ryan, et al., 2000). It has been reported that one reason students drop out of online programs is because of lack of peer interaction. Therefore, the interaction is vital to the online class (Smith, 2005). The interaction between learners also enhances their ability to synthesize and evaluate the learning (Belanger & Jordan, 2000). Discussion allows students to process what they are learning. It allows students to exchange ideas and perspectives about the information. Because asynchronous threaded discussions allow students to log in at their convenience, one student can post a message, and other students can respond at a later time. Studies have shown that students in an online class that includes discussions actually work longer outside of class than students in a traditional class, and electronic discussions are sometimes even more effective than traditional classroom discussions (Brooks, et al., 2001).

The reason asynchronous discussions can be more effective than discussion in traditional classes is because all students can compete equally for talking time. The shy student feels freer to participate because he or she does not have to compete with the other more aggressive students. In addition, students can take their time and reflect on the postings before responding, which can result in more meaningful replies (Abramson,

2000; Abramson, 2004). Because online education can facilitate interaction to a greater extent than in traditional classrooms, it can make students almost forget that the setting is a classroom of one. Without interaction, a classroom of one can be a very isolated place, and learning can be compromised (Maeroff, 2003).

Another advantage of asynchronous discussions is that they are non-discriminatory because the students cannot see each other (Singh & William, 2004; Yang & Cornelious, 2005). There are no cues to social hierarchy, and the medium changes the dynamics of the social interactions. Age, race and gender are less apparent, and everyone feels equal. There is no embarrassment about a speech impediment and no advantage to being good-looking. Everyone is free to be themselves and may feel less intimidated because there is some anonymity (Guidera, 2003; Lewis, 2000; Salmon, 2003; Weller, 2002).

Online text-based discussions are more permanent than regular conversation, and therefore the learners can go back and revisit messages that have been posted. They can then synthesize, reason and reflect on what they have learned (Kirschner, 2004; Salmon, 2003). It should be noted, though, that the accumulation of all these posted messages can be overwhelming to both students and instructors. If the class size of online classes is too large, then students may not be able to keep up with reading all of the postings and replying to them (Abramson, 2003a).

It is the responsibility of the online instructor to make sure that learners can feel safe to discuss information about themselves and their work online. Sometimes in the daily activities of teaching an online class, instructors forget that students need a nurturing environment. Instructors need to create positive learning environments where

honesty and ethical standards are expected (Porter, 2004). Instructors should avoid using disrespectful, threatening or discouraging words (Moore, 2004). The instructor should encourage students to ask questions and interact with others. Instructors should check the discussion board daily for messages from learners and respond immediately if possible. A prompt reply gives the students a sense of connection with the instructor. The instructor should also give students guidelines for posting messages including frequency and appropriateness. The instructor should always post a message stating if he or she will be out of town and unable to respond to students (Bickle & Carroll, 2003).

Creating Assignments

Good learning experiences must be thoughtfully designed by the instructor; they do not just happen by themselves (Murphy & Cifuentes, 2001). Assignments need to be handled differently in an online class than in a face-to-face class. Assignments should be designed to stimulate critical thinking skills. The use of technology extends intellectual stimulation because through the use of threaded discussions, learners respond to the ideas and comments of other learners. Instructors should create assignments that encourage students to maintain regular progress in the class and should provide technical instructions in advance to help prevent problems (Bickle & Carroll, 2003). Activities that force students to respond, make choices, perform, and think deeply about the material have better outcomes overall than activities that just require students to read or listen (Brooks, et al., 2001).

The lectures in an online class should be stimulating and informative because they are replacing the stand-up instructor. The instructor should use a mix of delivery media

to keep students' attention (Farrell, 2001). The goal of online learning should be to stimulate active learning and instructors need to understand how to design learning tasks to promote learner engagement. If tasks are well designed then learners will be engaged, which in turn motivates students. Also, if online learning environments are well designed, then online students will gain a greater understanding than those in the classroom, because students in the traditional class expect that the instructor will feed them the knowledge (Hedberg, 2003).

Building interactivity in online courses is a key factor in designing effective online courses. It takes time for an instructor to develop assignments that cause interactivity between the student and the content, yet studies have shown that the time taken to produce interactive lessons yields positive outcomes (Uttendorfer, 2004).

Creating active online assignments that involves learners with other learners and the content is critical to successful online courses. Interactivity is what gives life to an online class and is what makes it different than a self-study course. The instructor should build in many opportunities for students to learn through discussions. Interaction increases a student's participation in the learning process, and should not be left to chance. Assignments should be designed in a way that makes students want to learn. Students learn best when the learning environment is stimulating and actively involves them in constructing their own understanding. It is important to create a community of learners where students support each other. In addition, the learning activities should be closely linked to what they will do in the real world (Iverson, 2005; Kearsley, 2000; Maeroff, 2003).

As already discussed, constructivist learning assignments where there is active learning and students construct their own knowledge usually works best for online learners. The activities should be relevant to the students. Sometimes the students can become the teachers and students can share their diverse experiences and expertise. All students can reflect on what other students have shared (Rovai, 2004).

Discussions should not be a question with just one right answer and then the discussion ends. In addition, the instructor should not jump in too soon with answers (Moore, 2004). Web questions should incorporate several levels of Bloom's Taxonomy and require learners to apply, analyze, synthesize or evaluate the course content. Students should process information and explain meaning. Student collaboration does not happen automatically. It needs to be purposefully designed, and instructors should plan ahead regarding requirements for participation (Brooks, et al., 2001).

Instructors should create assignments that are very explicit so that students know what is expected. Because there are no non-verbal cues, the teacher may need to spell out in detail what is required so that students understand what is expected (Bennett & Lockyer, 2004; Porter, 2004). Posting a "Frequently Asked Questions" page can help clear up misunderstandings, and can be re-used by the instructor (Carnes, et al., 2003).

In an online format it is important to create effective online materials that use resources on the Internet (Bennett & Lockyer, 2004). Because students have access to databases and online resources, problem-based education and realistic exploration learning activities work well. Students also have the shared knowledge of other students as well as experts that can be contacted online (Kearsley, 2000). It is important to be

trained how to pick the most appropriate delivery method for the online lessons (Yang & Cornelious, 2005).

The online instructor needs to learn how to manage some type of electronic assignment submission so that students can submit their individual assignments. Assignment management is important because online instructors work with a large numbers of electronic files. Instructors need to learn how to organize and archive those files for easy reference, as well as transfer files to other formats (Bennett & Lockyer, 2004; Levy, 2003).

The assignment schedule needs to be developed around due dates, rather than class sessions. Instructors need to balance individual and group tasks and still offer some flexibility for students with other commitments (Bennett & Lockyer, 2004). Although adults learners prefer the constructivist approach with input in their learning, the instructor still should be in charge with the final say on the assignments and due dates (Abramson, 2004).

Creating Assessments

Assessments are an important issue because they are how instructors can measure the progress of students. For students, success on the assessments is their goal in the class (Weller, 2002). Instructors must find ways in an online class to check to see if students understand what they are being taught (Stammen & Schmidt, 2001).

Assessments may be different in an online class than in a campus class, and instructors must learn how to measure the learning of online students. Instructors should be willing to let go of rigid assessments they have used in traditional classes and rethink such things

as how to give practical assessments. Multiple choice and standardized tests may not be what is needed for an adult online learner. Instructors should consider using diverse forms of assessments (Carnes, et al., 2003; Donar, 2004; Rovai, 2004; Weller, 2002).

Assignments can be the major assessment tool to measure student performance. Essay tests might be preferable to multiple choice tests to ensure that students are not cheating. If instructors prefer multiple choice tests, software can be used to set strict time limits for taking the test, and to randomly generate the test questions. Username and passwords can also be used for restricting access to the tests (Ko & Rossen, 2001; Yang & Cornelious, 2005).

Formative assessments that give immediate results can be used to identify weaknesses. Performance assessments can be used rather than right answer tests (Abramson, 2003c; Aisami, 2004). Self-assessment through self-testing is a good active learning activity. An electronic quiz can be taken right after reading an assignment to provide immediate feedback and self-evaluation. Students can continuously evaluate their own progress (Singh & William, 2004; Waterhouse, 2005). Instructors should be taught to balance formative and summative evaluation. Embedded assessment where students reflect on their own developing knowledge base is also helpful. Multiple choice and true false tests become meaningless and hard to manage in online classes because students can have the books in their lap while taking the test (Weigel, 2002).

Assessing students should be addressed as part of the instructional development process. Because student interaction is so important in online classes, instructors should make sure that students engage in collaborative activities and have formal assessments

linked to those activities. Teachers should also allocate grades for the contributions made to the asynchronous discussions (Picciano, 2001; Weller, 2002).

Colleges want high assessment standards and worry about online students cheating. There is a perception that more cheating and plagiarism occurs in online classes. In reality they are equally a problem in traditional and online classes (Heberling, 2002; Weller, 2002). The instructor's syllabus should include the institution's policy on academic honesty. It needs to make clear that plagiarism and cheating will not be tolerated (Farrell, 2001).

It very easy to copy and paste passages from Internet sources and put them in an assignment. Cheating by copying and pasting passages, however, can also be done by traditional classroom students. Cheating can usually be spotted by the online instructor, because the resulting assignments may not flow properly because they have pieces from different articles put together (Heberling, 2002). In fact, in some ways it is harder for students to cheat in online classes because the instructor becomes so familiar with each student's writing style, that they can easily see when it changes. Instructors can electronically have accessible every work that a student has turned in from the beginning of the class. If there is a significant improvement in an assignment, it can be compared to previous assignments (Hansen, 2003).

Because the assignments are in electronic form, instructors can look for plagiarism by searching the Internet and comparing references online to the student's assignment. There are also programs available that can analyze papers for plagiarism. A search engine can also be used to search for a single phrase in quotes. The search engine

will look for an exact match and the instructor can usually find the original source (Hansen, 2003).

In a face-to-face class, instructors do not ask students to show identification to prove they are in fact the student on the class roster. Especially in a large lecture hall, many times the instructor does not even know the students. It is conceivable that someone else could take tests for a student. Cheating cannot always be detected, but again, it is a problem in all types of classes (Darnell & Rosenthal, 2000/2001).

Ensuring Quality of Training

Even proponents of distance education sometimes question the quality of online classes (Yang & Cornelious, 2005). The quality of online classes should not be lowered to accommodate the busy life styles of online learners. Online classes can be flexible to meet student needs and still have a quality that is at least equal to or greater than traditional classes (Abramson, 2000). The quality of online programs can be affected by policy areas of planning, administration, and accreditation (Berge & Mrozowski, 2001).

Training

It is clear that in order for online instruction to be successful, instructors need to change their teaching methods. Instructors need to be trained how to use these teaching methods, because the success of online learning depends on teachers acquiring new skills (Bickle & Carroll, 2003; Salmon, 2003). There should be staff development programs in place, and there should be ongoing training because the technologies keep changing.

Also, staff development should be evaluated and reviewed, and instructors should make suggestions for improvements (Picciano, 2001).

To ensure quality, instructors need to learn how to use technology in education and also how to apply effective learning theories (Berg, 2002b; Ross, Batzer & Bennington, 2002). Many institutions train their online instructors through their own certification process to try to ensure quality.

Mentors

One strategy to ensure quality is for instructors to have mentors. The mentor should be an experienced online instructor that could observe and help the new online instructor with practical advice. Also, before an instructor starts to teach online, it is helpful for him or her to observe another online class in progress (Barker, 2003; Palloff & Pratt, 2001).

Active Learning Strategies

Active learning strategies have proven to be the most effective way to teach online. There is greater learning success when the learners' brains need to work and are kept active (Brooks, et al., 2001; Quilter & Weber, 2004). One measure of the academic quality of online classes is the degree to which students interact with each other and with the instructor. The number of interactions as well as the nature and quality is important in evaluating the effectiveness of an online program (Berg, 2002b). Studies also show that interaction is valued by students and is a predictor for course success. The dialogue in an online learning environment can influence achievement. Online classes should

provide engagement, interaction and a participatory environment for students (Donar, 2004; Hoskins & van Hooff, 2005; Iverson, 2005; Maeroff, 2003). Students may drop out because of a feeling of isolation if the classes have little contact with instructors or fellow students (Bollinger & Martindale, 2004). Successful students communicate with the instructor. Most students also report that the audience of peers in the threaded discussion gives them added incentive to successfully complete assignments (Whipp & Chiarelli, 2004).

Faculty Forums

Instructors will benefit if there is some faculty forum or other network to communicate with others involved in online education (Smith, 2005). Instructors interacting with other instructors can improve quality, and sometimes an online place where faculty members can share with each other and learn from each other is created. Through threaded discussions, instructors can share teaching strategies. They can also share what has worked and not worked in their classes and answer each others questions (Carnevale, 2004; Kelley, 2002). Hansen (2003) reported that instructors need to swap ideas, and that it is also helpful to create portfolios with syllabi and other tools for instruction in online courses. These portfolios could be made available to other online teachers. Quilter and Weber (2004) suggest creating a handbook that contains the helpful suggestions of other instructors.

Part-Time Instructors

Some critics feel that online programs might be lower in quality if there are too many part-time instructors. On the other hand, when comparing full-time to part-time instructors, it was found that adjuncts are usually highly qualified with graduate degrees and work experience. In fact, many times retired principals and other administrators offer their expertise by teaching online (Reeves, 2002). Usually the same qualifications are expected for instructors whether they are online or traditional, part-time or full-time. The issue, however, is not that the adjuncts do not have the qualifications, but that they are not connected with a campus. They are not interacting with other instructors, which is important for resources and support (Carnevale, 2004). Adjuncts have played a big role in taking education into online classes, because they have stepped up when full-time instructors have been hesitant (Puzziferro-Schnitzer, 2005). Part-time instructors can provide quality instruction, rich with their work experience, as long as they are connected in some way to other instructors.

Student Feedback

In order to ensure quality, many colleges solicit feedback from the students. Instructors can solicit feedback on a timely basis to see if there are misunderstandings. If there are, then the instructor can make adjustments (Singh & William, 2004). Student evaluations can also help teachers get suggestions for improvements in online classes (Carnevale, 2003; Hansen, 2003). Bollinger and Martindale (2004) developed and implemented an online student satisfaction survey. The results showed that student satisfaction is most dependent on instructor variables such as communication, feedback,

preparation, content knowledge, teaching methods, encouragement, accessibility, and professionalism. If the institution does not evaluate online classes, then instructors can create their own evaluation forms to get useful student feedback that can be implemented in future classes (Cooper, 2000).

Another factor in student satisfaction is interaction. Students must be given plenty of opportunities to participate in discussions to stay involved in an online course. Students who are more satisfied have a higher motivation and those with a higher motivation are more likely to succeed in an online class (Bollinger & Martindale, 2004).

Administrative Review

The administration should also have a review process in place. The assessment and evaluation process is crucial to an online program's success. Department deans should evaluate online instructors (Dahl, 2003). Evaluation from outside reviewers should be considered in addition to student input and evaluations (Lee & Dziuban, 2002). The review process should be continually evaluated for improvement, eliminating what does not work (Dahl, 2003).

Beginning instructors often go through a survival stage where they become flooded with problems that they did not anticipate would occur. Just establishing a routine that works takes huge amounts of energy, let alone encountering unanticipated situations. At the end of a school year, many new instructors think about which practices were successful and which were not (Mauer & Zimmerman, 2000). To create a successful professional development program, the competencies needed to teach an online class first need to be identified (Williams, 2003). In addition, if the successful

practices were compiled based on the reflections of those who have already taught online courses, it would be very helpful for sharing with other online instructors.

Class Size

Class size of online classes can also affect the quality of the class. The enrollment in online courses should have definite limits (Yang & Cornelius, 2005). Classes should be fairly small in size because there is so much personal communication between the students and the instructor. Of course the teacher may not be able to decide, but 15-20 students is a good class size (Lewis & Blair, 2003) If the class size of online classes becomes too large, then it can be overwhelming to both the students and instructors trying to keep up with the communications (Abramson, 2003a).

Summary

The literature shows that online education is growing. Teaching an online class is different than teaching a traditional class. The lack of visual cues can lead to miscommunication. There is agreement that the role of instructors is different in online classes, and instructors need specific training in online communication and other areas (Lewis, 2000; Palloff & Pratt, 2001; Ryan, Scott, Freeman, & Patel, 2000; Waterhouse, 2005). The literature indicates that in addition to technology training, instructors need training in these areas: (1) how to convert traditional classes to an online format, (2) the details of creating a syllabus specifically for an online class, (3) the best way to meet the needs of online learners who are sometimes different than traditional students, (4) how to become a facilitator of learning instead of a lecturer, (5) how to effectively use

asynchronous and other communication skills, (6) how to design assignments that are effective for online learners, and (7) how to create assessments for an online class.

Universities want to provide quality education in all forms of delivery. Institutions need make sure classes are a good fit for online teaching without compromising the quality of the class. How educators ensure quality and integrity of online classes, and what role the institution plays are questions that need to be answered (Carnes, et al., 2003).

The literature does not indicate specifically what the training program for quality online education should include. It has been recommended that there be an in-depth analysis of online training needs (Goodyear, et al., 2001). Quilter and Weber (2004) agree that it is necessary to identify how to prepare teachers for online classes.

Contributions of the Study

This study has identified some specific training needs of online instructors. A faculty development handbook was developed that should be generalizable to all instructors who teach online classes. Many institutions offer training programs, but there is a lack of consistency in objectives and content in training programs. The study completed a training needs analysis and identified what was lacking in the training of online instructors and what they needed to learn on their own.

This study reports what needs to be taught to online instructors based on the experiences of those who teach online. It also gives practical tips from experienced online instructors that can be helpful for others.

Chapter 3

Methodology

Research Methods Employed

This dissertation project completed a developmental study with qualitative and quantitative components. With qualitative research, the researcher obtains the views of participants. The participants were chosen because of what they knew (Creswell, 2005). Instructors who have already taught online can draw from their experience to identify the training needs of online instructors. A closed-ended question gives participants answers to questions from which they can choose, such as “agree”, “disagree”, etc. Open-ended questions allow participants to answer by composing their own response (Salant & Dillman, 1994). Some open-ended questions were used in this study. There are advantages to open-ended questions. The answers can more closely describe the views of the respondents, and many respondents like the opportunity to answer some questions in their own words (Fowler, 2002). With quantitative research, the researcher collects numeric data from participants and analyzes the numbers using statistics. This study also had some closed-ended questions that were assigned the values 1 through 5. Those questions were analyzed with statistics.

The developmental portion of this study was the design of the contents of a faculty development handbook. Developing and producing a product such as a handbook requires integrating elements that make up the instructional design plan. Instructional design (ID) is based on learning theories, analysis, and other elements that focus on

factors that influence learning outcomes from the perspective of the learner (Morrison, Ross, & Kemp, 2004).

Identifying the instructional goal is the most important part of the ID process. Even if the instruction is well written, it may not serve the purpose that the designer intended. One method to identify instructional goals is to use subject-matter experts. These experts consider what they were taught and their experience and try to improve on it (Dick, Carey, & Carey, 2001). For this study, the subject-matter experts were experienced online instructors who served on the expert panel.

Many faculty members realize their need to learn new teaching strategies and are willing to learn, but only when faculty development programs are effective and focused on their needs. Faculty development workshops that are in place may be ineffective because many do not use ID models or procedures. There is a generic ID model known as ADDIE, which is an acronym for the five stages of analysis, design, development, implementation and evaluation (Davidson-Shivers, Salazar, & Hamilton, 2005). The ADDIE model was used to plan the faculty development handbook for this dissertation project. Below each step of the model is described.

Analysis

Before instruction is created, a goal analysis or needs assessment is conducted to determine the problem and the most appropriate way to resolve those needs. It is important to thoroughly understand the needs so that the instruction can change the target audience's performance (Morrison, et al., 2004). The needs assessment process can then allow designers to set the instructional goals. The instructional goals state what the

learners should be able to do when they have completed the instruction. These goals are usually skills, knowledge or attitudes that learners must acquire (Dick, et al., 2001). For this study, an examination of the current literature determined that there is a need for training online instructors in the new teaching methodologies that are required for online education. The survey instrument helped determine the training needs based on the responses from instructors who have already taught online.

Design and Development

The design phase outlines the specific learning objectives and content. There should be a systematic and logical method of identifying the strategies and activities needed to reach the instructional goal (Morrison, et al., 2004). The actual creating of the learning materials is the development phase. Many times the design and development are done concurrently. The instructional materials and sequencing of events are planned simultaneously instead of first designing and then developing the materials (Davidson-Shivers, et al., 2005).

This dissertation project combined the design and development phase. The strategies and activities were determined by the review of the literature as well as the feedback from the survey instrument. The sequencing is the logical order in which instructors will need to implement the methods and ideas presented in the handbook.

Implementation and Evaluation

The implementation phase is when the instruction actually takes place, and the evaluation determines the effectiveness of the instruction (Davidson-Shivers, et al.,

2005). The implementation for this project was conducted by the expert panel, and their remarks constituted the evaluation. The purpose of the evaluation was to make sure that the training in the handbook is worthwhile and relevant based on the experiences of the expert panel.

Quantitative and Qualitative Methods

Quantitative and qualitative research methods were used in addition to the developmental study discussed above. The quantitative portion consisted of questions on a survey that fell into the category of interval scales. An interval scale provides continuous response options with assumed equal distance between options (Creswell, 2005). A Likert type scale was used for this study with numbers 1 through 5 assigned to “Strongly Disagree” through “Strongly Agree”. There was an assumed equal distance between the options. Some descriptive statistics were completed using the numbered responses.

There were questions that asked the respondents for information such as if they are full or part-time instructors, whether they design and develop their own classes, etc. Those questions fell into the category of nominal or categorical data. The scores do not have order, and therefore some types of statistics cannot be performed on that data (Creswell, 2005).

There were open-ended questions that had respondents give their opinions and information about their personal experiences. According to Creswell (2005), in qualitative research, rather than analyzing statistics, the researcher analyzes the words of the participants to increase understanding of a topic or to look for new approaches to help

others. The open-ended qualitative questions for this study provided valuable insights from experienced online instructors.

Survey Methodology

Subjects

As per Creswell (2005), the participants for the qualitative study were chosen based upon whether they had the information or experience needed. Online instructors were surveyed because they were able to identify their own training needs in the area of online teaching. Only instructors who had taught at least one online class were selected. In addition, only instructors who design and develop their own classes were selected. The selected instructors were information rich with personal experiences and anecdotes that could be shared with other instructors. Experienced online instructors know first hand the difficulties encountered while teaching an online class, and can reflect on their past experiences about what they had to learn the hard way. Capturing those experiences and difficulties can lead to more adequate training for future online instructors.

Sampling Procedure

Purposeful sampling was used for this study. In qualitative research, the researcher purposefully or intentionally selects individuals who have information that can help answer the research questions being studied. Within this category of purposeful sampling, there are more specific sampling methods. Typical sampling is when the researcher chooses participants who are typical to a particular situation (Creswell, 2005). For this study, online instructors were selected from the California Virtual Campus,

because they are typical faculty members of a college or university. Also, they were purposefully selected because they could best identify the training needs for online instructors. According to Fowler (2002), the sample size determination is made on a case-by-case basis, and there is no agreed-upon standard for the minimum number of responses. Creswell (2005) suggests though, that as a general rule of thumb, the researcher should select as large a sample as possible. For this study almost 2000 instructor email addresses were obtained. All instructors were emailed the survey; however some did not open the email, some chose not to respond, and some who did respond were eliminated because they had not taught an online class or did not design and develop their own classes.

The Survey Instrument

In qualitative research, the data collection does not use a pre-established instrument. Instead, the researcher develops his or her own form with questions to learn from the participants in the study (Creswell, 2005). Fowler (2002) suggests grouping numbers in major sections such as A1, A2, A3, B1, B2, etc. so that when questions are added and deleted, it is not necessary to renumber the entire survey. The questionnaire entitled “Online Faculty Training Survey” was developed with six major sections. Section A obtained background information about the participants. One background question asked instructors in which area they teach. The answer choices were: Applied Technology, Art, Business/Business Education, Child Development, Computer Science, Engineering, Health Sciences, Language Arts, Math, Music, Science, Social Science, Speech, Teacher Education, Theatre Arts, and Other. Section B asked instructors their

opinion about the importance of the 10 major training areas identified in the literature. Section C asked instructors whether they had satisfactory training in the 10 major areas of training. Section D contained open-ended questions that allowed instructors to state how their training was lacking or helpful in specific areas and how they learned what they needed to know. Section E contained both closed-ended and open-ended questions regarding quality issues of online education. Section F included open-ended questions that provided practical advice to share with other instructors (see Appendix A).

The survey instrument should be used to gather new information to help solve the problem that is identified in the study. It is important, therefore, to have the problem clearly identified so that it can be translated into good questions that the respondents can answer objectively. It is important not to have an answer in mind to solve the problem being studied, otherwise the researcher can inadvertently write biased or leading questions (Salant & Dillman, 1994).

The expert panel reviewed the preliminary survey to ensure that the questions were not leading, and to ensure that the questions would help identify the training needs of online instructors. In addition, each member of the expert panel took the survey and noted time on task. They also took notes about any confusing or misleading questions, and the order and structure of the survey. The panel met and discussed the structure of the survey and individual questions. The suggestions of the panel lead to deleting a couple of questions, adding a question, and restructuring the sequencing of the questions. After the revised survey was completed, it was pilot tested again by the expert panel as well as eight other online instructors. A few other minor changes were made after the second pilot test.

Study Procedures

A sample for a study should represent the population (Fowler, 2002). The population for this study consisted of instructors who teach online classes. The CVC website contains the names of instructors who teach online classes for colleges or universities in the state of California. For this study, the names and email addresses of online instructors were obtained from the CVC website.

In order to implement guidelines developed by the Federal Drug Administration based on the ethical principles of respect for persons, beneficence, and justice, there may need to be approval by an institutional review board (Creswell, 2005). Prior to the start of the data collection for this study, approval was sought by the Institutional Review Board (IRB) at Nova Southeastern University because human subjects were involved (see Appendix B).

A goal of good research is to have observations that are reliable. One factor that can result in unreliable data is questions that are unclear or ambiguous. A study may have invalid results because of poorly designed questions and information that has little use and application. Content reliability is the extent to which the questions are representative of all possible questions that a researcher could ask about the content. Content validity can be evaluated by examining the plan and the procedures used in constructing the instrument (Creswell, 2005).

Researchers usually go to a panel of experts to have them identify whether the questions in a survey are valid. The panel examines the information about the objectives of the instrument, the content area, and the level of difficulty of the questions (Creswell, 2005). The survey instrument for this study was reviewed by an expert panel to ensure

content validity and reliability. There were five members of the expert panel who are subject matter experts because of their experience teaching online. The panel members were asked to evaluate the survey questionnaire to see if the questions cover the essential skills needed for online instructors. The panel members also looked for unclear or ambiguous questions. The expert panel made suggestions as to the content, number of questions, layout and design of the survey.

Once a survey has been developed, a pretest of the instrument should be completed. The pretest will help determine the reliability of the survey and also see how it works in realistic situations. It also allows the researcher to make any necessary changes before the actual administration of the survey takes place (Creswell, 2005; Fowler, 2002). A pilot test of the survey for this study was conducted using several full-time instructors who teach online classes for Fresno City College in California. Those instructors were asked to complete the questionnaire and indicate any ambiguous questions and make suggestions for improvement. The instrument was revised using the suggestions. The responses from the pilot test were also evaluated for consistency of responses.

Data Collection Procedures

For participants with Internet access, respondents can be asked to go to a website to answer questions (Fowler, 2002). For this study all the participants had Internet access, because it is a requirement to teach online. A website was created with the revised questions on the survey. It was a website connected to a MySQL database with the ability to store responses in the database. The online instructors were emailed a

“cover letter” that explained the purpose of the study. The email provided a hyperlink to the Informed Consent Form and a link to the website with the survey. Incentives can encourage individuals to respond to a survey (Creswell, 2005). The instructors were offered the resulting faculty development handbook as an incentive to participate (see Appendix C for the email letter and Appendix D for the consent form).

One tenant of ethical research is that the names of those who choose to respond to the survey should not be shared with others. Participation should always be voluntary, and confidentiality should be assured (Creswell, 2005; Fowler, 2002). For this study, strict confidentiality was maintained at all times. Each potential respondent was identified by a code in order to identify non-respondents for follow-up. In addition, during data collection all data were kept confidential and were not shared with other participants or individuals outside of the project. The information was kept on a computer that was password protected, and was accessible only by the researcher. Participants were entered into the database of information only if they choose to respond to the survey. All reporting was in a summarized form, and no individual names were used. After all the data were collected, the researcher only referred to the participants by the numerical code and personal identifying data were deleted.

Follow-up Procedures

In order to reduce non-response to surveys, a reminder notice should be sent to emphasize the importance of the study (Fowler, 2002). For this study, after two weeks the non-respondents were identified and were emailed a follow-up reminder. The reminder stated the importance of the survey with a link to the website with the

questionnaire. Also, the renewed promise of the handbook served as an incentive to respond (see Appendix E for the follow-up email).

Data Analysis

Surveys can provide useful information to evaluate programs in schools. The characteristics of the participants who are stating their opinions can be gathered through the survey (Creswell, 2005). The first section of the survey for this study gathered information about the respondents such as how many semesters they had taught online, whether they designed and developed their own online classes, and if they used a course management software program.

The second part of the questionnaire used an interval scale with the numbers 1 to 5 assigned to the responses “Strongly Disagree” through “Strongly Agree.” Fowler (2002) recommends assigning the numerical value 5 for “Strongly Agree.” Descriptive statistics can be used to indicate general tendencies (Creswell, 2005). Descriptive statistics were completed for the interval scale responses, including the mean, the mode, and the standard deviation.

Open-ended questions allow participants to provide useful information and explanations for their answers to the close-ended questions. It allows participants to give their personal reflections (Creswell, 2005). For this study, participants were asked what skills they were lacking when they started teaching online and how they learned what they needed to know. It also asked for useful training materials, resources and practical tips. Information about what should be included in faculty development programs for

online instructors was provided by the teachers taking the survey. Common responses were summarized and anonymous quotes were used.

Validation

The training needs were summarized from the results of the survey as well as the literature, and a faculty development handbook was created from the training needs that were indicated. Validity means that researchers can draw meaningful inferences from the results of the study (Creswell, 2005). The expert panel of online instructors and administrators validated the handbook. They were asked to determine if the handbook addresses the needs that were identified in the responses to the survey. In addition, they were asked to critically evaluate each element of the handbook to see if it is realistic and would meet the needs of college online instructors. The final handbook incorporated the suggestions made by the expert panel and conforms to best practices as presented in the literature.

Risks / Benefits to Subjects / Consent Forms

Studies can sometimes adversely affect the lives of the participants (Fowler, 2002). For this study, there were no anticipated risks to the subjects and they were not adversely affected. There was no physical pain, discomfort, psychological or emotional harm. It is always a possibility that there will be a loss of subject confidentiality, but the likelihood was minimal and in fact did not occur. The database with the participant information was only available with a username and password and available only to the researcher. All data were kept confidential and were not shared with other participants or

individuals outside of the project. In addition, each participant was assigned a random code. The names of the participants were deleted. All reporting was in summarized form and no names were used.

Surveys can also benefit the participants by giving them the feeling that they have significantly contributed to a worthwhile effort. Other benefits can include payment for their time (Fowler, 2002). The participants of this study received the findings including training suggestions and experiences of other instructors. They also received a list of practical online teaching strategies from experienced online instructors which could be used in their own online classes. This study is generalizable to all online instructors and should benefit those who are looking for what should be included in a faculty development program for quality online instruction. The practical strategies compiled from experienced online instructors could be invaluable to new online instructors.

With ethical survey research, participants should be informed about the purpose of the survey, and their participation should be voluntary (Fowler, 2002). All participants for this study were adults, and responding to the survey was voluntary. Participants for this study were chosen from instructors who teach online classes for the California Virtual Campus (CVC). Email addresses were obtained from the CVC website. Their complete names and physical mailing addresses were not known. Potential participants received an email, and only instructors who had taught at least one online class were selected. In addition, only instructors who designed and developed their own classes were selected. No flyers, brochures or advertisements were used to recruit subject participation.

The email did not coerce prospective subjects in any way. It only provided information about the study. If they were interested, they could click on a hyperlink to the consent form. At that time they could read the entire consent form which included a description of the study, risks and benefits, confidentiality and privacy, and other considerations.

There was the statement: “Clicking below indicates that I have read and understood the description of the study and I agree to participate.” When they clicked on the link it constituted their electronic signature, and their information was added to a database indicating that they agreed to participate. They were then given another hyperlink which allowed them to take the survey.

Format for Presenting Results

It is helpful to summarize the answers to questions with measures of central tendency such as the mean and the mode (Salant & Dillman, 1994). The data from this survey were automatically placed in a MySQL database when a respondent submitted the survey. All of the data from all of the respondents were transferred into an Excel spreadsheet to summarize the information and sort answers. Summaries were given for the responses to each of the survey questions, including the mean and mode for quantitative questions.

One way to summarize open-ended responses is to group the answers into similar responses (Salant & Dillman, 1994). The open-ended responses for this study were put into categories and summarized. Some anonymous quotes were used.

Using visual charts and graphs can be a powerful communication tool (Salant & Dillman, 1994). In addition to written descriptions of the survey results, this study used summary tables for visual reinforcement.

The volume of results from a survey can be overwhelming, and it is best to sort out the wheat from the chaff (Salant & Dillman, 1994). The findings of major importance were interpreted and emphasized. The specific training needs of online instructors were summarized.

Milestones

A review of the literature was completed in order to identify major areas of training that needed to be studied. An expert panel consisting of experienced online instructors was formed to review questions that were used in the survey. The questions were based on the major areas identified in relevant work in the field. The survey was based on the recommendations of Thomas (1999), Salant and Dillman (1994), and Fowler (2002). A consent form was developed to inform participants of the purpose of the study as well as the risks and benefits. Approval was sought by the Institutional Review Board at Nova Southeastern University. A website was created with the survey questions. It was pilot tested using several online instructors.

A list of California college online instructors with their email addresses was compiled from the California Virtual Campus website. Those instructors were emailed a cover letter with a link to the Adult Informed Consent form. Those who clicked their consent were linked to the survey. Participants answered questions about their training to teach online classes as well as what they needed to know that they had to learn on their

own. In addition, the survey allowed room for comments and anecdotal stories about problems or miscommunications experienced in online classes.

When instructors submitted responses to the survey the answers were automatically stored in a database that could be accessed later for analysis. The data received from the surveys were compiled and analyzed

A faculty development handbook was developed based on the literature and responses to the surveys. The expert panel provided input at the development stage of the survey. They validated the completed instrument and the handbook produced as an output of the investigation.

Resources

An expert panel was a resource to give suggestions for the survey, validate the content and validate the handbook. The panel consisted of Marilyn Meyer-Behringer, Ed.D, Associate Dean of Instruction for the Business Division at Fresno City College, California (FCC), Stevie Daniels, Coordinator of Academic Computing for FCC, Todd McLeod, Instructor in the Computer Information Technology Department at FCC, Renee Harris, Counselor and Department Chair of the Counseling Department at FCC, and Vikki Piper, Oakhurst Center Coordinator for the State Center Community College District.

Marilyn Meyer-Behringer had been involved with online education for 6 years and was the first instructor at FCC to teach an online class. She brings not only her online teaching experience, but also the perspective of administration. Her doctorate is in Educational Leadership and her dissertation was in the area of online education.

Stevie Daniels has taught online for eight years, and coordinates technology workshops for the faculty at FCC. She has developed many online courses including Anthropology, Linguistics, Integrating Technology into the Curriculum, Internet Research for Instructors, and Computers in Today's Classrooms. She teaches instructors how to use FrontPage and Blackboard as course platforms for online instruction. She has coordinated several Summer Technology Institutes for Fresno City College, each having an online teaching specialization track. She was the lead instructor for the Monterey Institute Summer Institute track for video and digital media. She has completed advanced coursework from UCLA in online teaching methodology and research.

Todd McLeod has taught online classes for four years. He has presented faculty technology workshops many times for Course Technology as well as for Fresno City College. He has written a textbook for preparing students to take online classes which is currently in the publication process.

Renee Harris gives the perspective of a counselor. She has taught online for five years, and has presented her online curriculum at various conferences in the state of California. She holds the Distance Credentialed Counselor designation which is a certification recognized by the National Board of Certified Counselors for distance/online counseling.

Vikki Piper is an administrator for a community college and has taught online for eight years. She has taught online for the University of Phoenix as well as Fresno City College. She has an MBA with an emphasis in Finance and has over 20 years of business experience both as a Chief Information Officer and Chief Operating Officer for dot com companies.

A server and domain name were needed for the website. The domain name jfrese.com was purchased from mydomain.com. The web hosting service where the server was located was PagesGarden. A MySQL database stored the data from the surveys and WinSQL query software was used to access the data. An Excel spreadsheet program was used for statistical data as well as to help summarize the information and create tables. Joshua Frese wrote the scripting programs in Perl to interface the survey with the MySQL database and also to automatically send the emails and keep track of which emails were opened.

Reliability and Validity

Reliability means that scores from a survey should be nearly the same on repeated administrations of the same survey. They should consistently give similar results. Questions that are unclear or ambiguous and survey administration procedures that are not standardized can cause unreliable data (Creswell, 2005). Every question in a survey should be asked in the exact same way to every participant, and the questions should mean the same thing to every respondent. Respondents can also respond more reliably with closed questions where alternative answers are given to them (Fowler, 2002).

For this study, the expert panel reviewed the questions on the survey to make sure that there was no ambiguity of wording, that there was a standardized presentation, and that there was no vagueness in the response form. The survey was also administered to the expert panel. The expert panel discussed each question to find out if they each understood the question to mean the same thing. In addition, the survey was pre-tested on eight online instructors at Fresno City College. Those instructors were asked if any

questions were unclear. Modifications were made to the survey after the review by the expert panel, and again after it was pilot tested by online instructors.

Validity means that the researcher can draw meaningful inferences from scores on an instrument. A study may have invalid scores because of the inability to make useful predictions from the scores, poorly designed questions, or information that has little use or application. There is content validity if the scores from the questions are representative of all possible questions that could be asked about the content. Usually researchers have experts identify whether questions are valid (Creswell, 2005). Again, the questions for this study were given to an expert panel for analysis to help ensure that they were valid.

The answers to questions are valid if respondents answer the questions accurately. There may not be valid answers to questions if the participants do not understand the questions, if they do not know the answer, if they cannot recall the answer or if they do not want to answer the questions. A limit of survey research is what people are willing to tell researchers (Fowler, 2002). The questions on the survey for this study were questions that respondents were willing to answer. They were worded in such a manner to try and help the respondents recall the information.

Summary

A survey was administered to experienced online instructors for this study. The purpose of this study was to identify the training needs of online instructors, and therefore experienced online instructors were used to help identify those needs.

The survey had both closed and open-ended questions, and used both quantitative and qualitative research. The qualitative open-ended questions asked the respondents to report areas where they think training is important and areas where their training was lacking. It also asked the respondents to identify specific teaching methods and strategies to help ensure quality online classes.

The closed-ended questions had these answers from which the participants could choose: strongly agree, agree, neutral, disagree, and strongly disagree. Those responses corresponded with the values 1 through 5 with strongly agree being the value 5, agree being the value 4, etc. Statistical analysis of the responses can be completed when values are used.

An expert panel checked the survey for reliability before administration. A survey is considered reliable if it is representative of the questions that could be asked about the content. In addition, the panel looked for poorly designed questions which could lead to invalid results.

After the survey was given, the data were interpreted and summarized and the useful information was reported in both chart and narrative form. A faculty development handbook for quality online instruction was created.

Chapter 4

Results

The purpose of this study was to determine the training needs of college instructors who teach online. The training needs were determined by reviewing the current literature as well as conducting a survey to identify areas of training that the participants perceived as important and to identify areas of training that the participants found was lacking in their own training to teach online. The survey also helped to identify factors that ensure quality in online classes, and obtained practical tips and resources from experienced online instructors. The data from the research and the survey were summarized.

This chapter contains two main areas which are data analysis and findings. The data analysis section discusses the survey return results. It goes through each section of the survey and summarizes the background of the participants, the training needs that were identified as important, the training that was lacking, and major areas that can ensure quality in online teaching. It also summarizes some comments and suggestions made by the participants. The findings section summarizes the major findings from the survey.

Data Analysis

Survey Return Results

A database was created and 1950 email addresses were obtained from the California Virtual Campus and put in to a Participants table in the database. An email was sent to each email address and tracked using a randomly generated code. The

database also had fields that tracked when an email was opened and when the survey was submitted. After two weeks a reminder email was sent to those who had not submitted the survey.

Some problems were experienced with emails that were forwarded to another person whose email address was not in the database. A survey with a different URL was created to solve the problem.

There were 287 surveys completed. A search of the Read Email field showed that of the 1950 emails sent only 781 emails were opened. That number does not include those who were forwarded the email, so it is unknown exactly how many actually received and read the email. It is estimated that for the 287 responses there were about 900 emails that were opened. The true response rate was approximately 32% which was calculated by dividing the 287 completed surveys by the 900 opened emails.

There are many possible reasons why only 900 read the email out of the 1950 sent. One reason is that some of the emails addresses were no longer valid or active. The researcher received approximately 200 returned emails that were undeliverable. Another reason is that many computers have filters that identify some emails as spam, or junk email. Many instructors may not open emails that are identified as spam or may not open any email when they do not recognize the name of the sender.

Of those who read the email but did not participate, again there are various reasons. The researcher received several emails from instructors who stated that they were too busy to respond. The researcher also received emails from those who stated they were retired or on sabbatical. Other receivers of the email may never have taught online and therefore did not take the survey.

Out of the 287 surveys that were completed, 13 were eliminated because the participant indicated either that he or she never taught online or that he or she did not design and develop his or her own online content. That left 274 usable surveys. The summarized data below are based on the answers to the 274 surveys. It should be noted, though, that the participants were not forced to complete all questions in order to submit the survey. A few participants only answered some questions, so there are a different number of responses for each question.

Survey Section A: Background of Participants

Most of the participants were experienced online instructors who teach full-time for two-year colleges. There were about 86% who indicated that they had taught online for more than four semesters, 75% were full-time instructors, and 94% taught for a two-year institution (see Tables 1 - 3).

Table 1

How long have you taught online?		
More than 4 Semesters	230	86%
2-4 Semesters	32	12%
1 Semester	6	2%
Total responses to this question	268	100%

Table 2

Full-time or part-time?		
Full-time	181	75%
Part-time	61	25%
Total responses to this question	242	100%

Table 3

Type of institution		
Two-Year	219	94%
Four-Year	14	6%
Total responses to this question	233	100%

A wide variety of disciplines were represented. Most taught in the Business discipline, but that was only 17%. Social Science followed with 16% (see Table 4). About 27% indicated that they use the course management software Blackboard, and 24% indicated they use WebCT. At the time of this writing, Blackboard and WebCT had already announced their plans to merge. They will operate under the Blackboard brand and will incorporate the best features of both products (Blackboard, 2006). More information about the background of the participants was obtained than was described here (see Appendix F).

Table 4

Teaching area		
Business	43	17%
Social Science	40	16%
Other	38	15%
Applied Technology	27	11%
Computer Science	25	10%
Language Arts	23	9%
Health Sciences	14	6%
Math	7	3%
Science	7	3%
Child Development	6	2%
Art	5	2%
Teacher Education	5	2%
Music	3	1%
Speech	3	1%
Theatre Arts	3	1%
Engineering	1	0%
Total responses to this question	250	100%

Survey Section B: Training Needs and Section C: Your Training

Sections B and C of the survey contained closed-ended questions that dealt with the 10 areas of training that were identified from the review of the literature. The overwhelming majority of instructors agreed that it was important to get training in each of the 10 areas. In fact there was over 90% agreement in eight of the areas, yet only about 50% agreed that they were adequately trained in those areas. The 10 areas on the survey were:

1. How to convert a traditional class to an online format,
2. How to create an online syllabus,
3. How to meet the needs of an online and /or adult learner,
4. How to become a facilitator of an online class,
5. Use of asynchronous communication,
6. How to create online assignments for an online class,
7. How to manage assignments,
8. How to create assessments for an online class,
9. How to prevent plagiarism in an online class, and
10. Technology training for online instructors.

It was section B where participants were asked to give a response based on their opinion as to the importance of each type of training. The only areas that received less than 90% agreement that the training was important were the areas of how to create an online syllabus and how to prevent plagiarism which received 74% and 86% respectively (see Table 5).

Table 5

This area of training is important										
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree										
		5	4	3	2	1				
		SA	A	N	DA	SDA	Total	Mean	Mode	Std. Dev.
B1	How to convert a traditional class to an online format	168	84	13	4	3	272	4.5	5	0.8
B2	How to create an online syllabus	79	122	53	13	5	272	3.9	4	0.9
B3	How to meet the needs of an online and / or adult learner	167	89	12	1	3	272	4.5	5	0.7
B4	How to become a facilitator / moderator of an online class	149	101	20	1	1	272	4.5	5	0.7
B5	Use of asynchronous communication	128	108	24	8	3	271	4.3	5	0.8
B6	How to create online assignments for an online class	135	112	17	5	2	271	4.4	5	0.7
B7	How to manage assignments (uploading, grading)	142	107	20	1	2	272	4.4	5	0.7
B8	How to create assessments for an online class (tests)	149	104	15	2	2	272	4.5	5	0.7
B9	How to prevent plagiarism or cheating in an online class	131	102	33	4	2	272	4.3	5	0.8
B10	Technology training for online instructors	182	73	15	0	2	272	4.6	5	0.7

In section C, participants were asked to give a response based on their opinion as to the quality of their own training. Only about half of the participants agreed that they had good training in each of the areas listed (see Table 6 and also Appendix G for additional statistics).

Table 6

My training was good in:										
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree										
		5	4	3	2	1				
		SA	A	N	DA	SDA	Total	Mean	Mode	Std. Dev.
C1	How to convert a traditional class to an online format	67	73	63	37	32	272	3.4	4	1.3
C2	How to create an online syllabus	62	83	68	27	32	272	3.4	4	1.3
C3	How to meet the needs of an online and / or adult learner	63	73	57	45	34	272	3.3	4	1.3
C4	How to become a facilitator / moderator of an online class	60	74	64	37	37	272	3.3	4	1.3
C5	Use of asynchronous communication	67	87	60	25	33	272	3.5	4	1.3
C6	How to create online assignments for an online class	60	84	59	39	30	272	3.4	4	1.3
C7	How to manage assignments (uploading, grading)	55	82	59	39	37	272	3.3	4	1.3
C8	How to create assessments for an online class (tests)	54	86	61	42	30	273	3.3	4	1.3
C9	How to prevent plagiarism or cheating in an online class	31	63	82	50	45	271	2.9	3	1.2
C10	Technology training for online instructors	74	83	57	35	21	270	3.6	4	1.2

Survey Section D: How Your Training was Lacking or Helpful

In section D of the survey the participants were able to reflect on their own training in the 10 areas that were discussed in the previous section. The questions were open-ended and optional. The most significant finding in this section was that most participants who responded did not feel that their training was adequate and that they had to learn by trial and error. Some instructors stated that the little training that they did receive was over their head and did not start at a beginning level. Other instructors

indicated that they want more advanced training to add more quality to their class website.

For each of the 10 areas, the vast majority stated that they did not receive formal training and had to learn it on their own. Many reported that they asked for help from a colleague or friend. Some reported that they took an online class so that they could see how another instructor taught an online class. For those who stated that they had good training, several reported that they took an online training certificate program either through the UCLA extension or through Cerro Coso Community College. Several indicated that they learned through a graduate degree program in technology.

For the question about creating a syllabus, many stated that they used their classroom syllabus and modified it somewhat for the online class. Most stated that they learned on their own that the online syllabus needs to be more explicit than a classroom syllabus and that the syllabus needs to be very detailed with all the assignments and due dates.

For training in the area of creating assessments, some stated that they use less multiple choice tests and more short answer and essay questions. Of those who use objective tests, several stated that they use a course management program that protects the tests and times the tests. In the area on plagiarism, many reported that their college uses the program Turnitin, which allows instructors to submit written reports and the program checks for plagiarism against its database and sources on the Internet. A few of instructors stated that they use Google by putting in phrases from student assignments to see if there is a match to something on the Internet.

The last question was about training or lack of training in technology. Many stated that they only received training in the specific course management software that they were using, such as Blackboard or WebCT. Many stated that they needed to take classes on their own, read manuals, or learn by trial and error.

Survey Section E: Ensuring Quality

Section E contained both closed-ended and opened-ended questions about ways to ensure quality online classes. Many instructors commented that there was poor training at their institution, that there was no requirement for training at their institution, that their technical support was under-staffed, that there were inadequate incentives, and no class size limit (see Tables 7 - 9).

Table 7

My college provides adequate training.									
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree									
5	4	3	2	1					
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.	
66	87	36	44	34	267	3.4	4	1.4	
25%	33%	13%	16%	13%	100%				

Table 8

My college requires adequate training.									
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree									
5	4	3	2	1					
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.	
36	73	56	60	42	267	3	4	1.3	
13%	27%	21%	22%	16%	100%				

Table 9

My college provides satisfactory incentives.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
16	32	47	53	116	264	2.2	1	1.3
6%	12%	18%	20%	44%	100%			

Most instructors indicated that being provided a mentor is important, while very few were given mentors. Most instructors indicated that student and administrative evaluations are important, but few institutions required them. Most instructors reported that experience in an online environment prior to teaching online is important, and most agreed that the use of threaded discussions in an online class is important (see Tables 10-14). Finally, a majority of instructors would like a faculty forum to communicate with other online instructors, but few are provided one. More details are presented in the paragraphs following the tables.

Table 10

Providing a mentor is important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
124	73	35	19	15	266	4	5	1.2
47%	27%	13%	7%	6%	100%			

Table 11

I was provided a mentor.		
Yes	No	Total Responses
40	226	266
15%	85%	100%

Table 12

Student evaluations of online classes are important.									
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree									
5	4	3	2	1					
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.	
139	102	20	4	0	265	4.4	5	0.7	
52%	38%	8%	2%	0%	100%				

Table 13

My college requires student evaluations.			
Yes	No	Not Sure	Total Responses
113	115	39	267
42%	43%	15%	100%

Table 14

Experience as an online student before teaching online is important.									
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree									
5	4	3	2	1					
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.	
108	75	50	26	5	264	4	5	1.1	
41%	28%	19%	10%	2%	100%				

There were 94 who took the time to write that the training at their institution was either non-existent or very poor. Some stated that the institution only covered the basics of technology, but did not cover any methodology or pedagogy. There were 33 who

stated that the training was good at their institution but some reported that it was not offered often enough or at convenient times. There were 14 participants who stated that their institution sends online instructors to another place to take the training.

There were 75 participants who stated that their college has no requirement for training. Several stated that instructors are “encouraged” or “supposed” to have training before they start teaching online, but it is not enforced. Many expressed their disappointment or frustration that there is no requirement because “there is no quality control” for the online courses being offered. One stated “Anyone wishing to teach online is allowed.” Another stated “Any instructor can teach an online class.”

There were 34 who stated that their college does have some training requirement in place. Several stated that their college requires a Certificate in Online Teaching. Others stated that the required training was very inadequate. For example, several stated that only one class in Blackboard was sufficient to allow an instructor to teach online.

There were 50 who stated that they have good technical support, and 50 who stated that they had poor support. The most common complaint for all of those who responded to this question was that their technical support was under-staffed. Another common complaint, even if the support was adequate, was that the support was only available during the day and not available on weekends or holidays.

Most instructors, 64%, felt that their institution did not offer adequate incentives to teach online. There were comments such as: “NO incentives!” , “Not one extra dime”, “Nada, Zilch, Nothing”, “Hahaha.” One even stated that the pay rate was the same, but the cap on the online classes is 50 students which is higher than for campus classes. Some reported that they received stipends the first semester and others reported

they were provided release time. A couple reported that they receive a higher pay rate for an online class. Most emphasized that whatever was provided did not begin to cover all the extra time that was required.

Participants commented on their college's class size limits in Question E10. The most common answer was that the class size limit is the same as the face-to-face classes, with 59 participants reporting that answer. Some, however, reported that there was no class size limit at all at their institution. The most common cap was 40 students; however there was some who reported the cap was 120 students.

Almost three fourths, 74%, reported that having a mentor was important but only 15% were provided a mentor. Some stated that instructors informally help each other.

Most instructors, 80%, agreed that student evaluations are important, but only 42% reported that their college uses student evaluations. Some instructors reported that they give student evaluations on their own in order to find out from students how the class could be improved.

For administrative or faculty evaluations, again most instructors, 76%, indicated that those evaluations are important, while only 31% indicated that their institution requires them. Several stated that administrators did not understand online classes well enough to evaluate them and several participants stated that peer faculty evaluations can be helpful.

Most instructors, 69%, indicated that having experience as an online student before teaching online is important. Comments about having online experience before teaching online included "Absolutely!!! I think it needs to be a requirement", "It is crucial! You have to know what it feels like..", "This is INCREDIBLY important!".

Most stated it was important so they could understand the student's point of view. Many also commented that taking online classes allowed them to see how other instructors taught online classes. They could see first hand what worked and what did not work.

The results showed that 84% agreed that the use of threaded discussions for student-to-student communication is important. Some of the comments were: "It is vital..." , "absolutely crucial..." , "otherwise there is no connection..." , "The MOST important part of an online class" , "It is often the heart of an online class" , and "It helps eliminate student isolation." Many instructors stated that the discussions are a requirement with points assigned. One stated that it is how attendance is taken, if a student did not post to a discussion then that student did not come to class.

Most instructors, 62%, agreed that faculty forums where online instructors could communicate with each other are important. Only 32% indicated that there was a faculty forum at their institution. Some instructors stated that they wished their college had a faculty forum. A few stated that they would not have the time to use a forum, and others reported that their instructors met or emailed each other informally to discuss online issues (see Appendix H for more detailed results from Section E of the survey).

Analysis of Survey Section F: Your Opinions

Section F contained open-ended questions to allow instructors to state what they found was lacking in their training and how they had to learn what they needed to know. They were also able give helpful advice and resources in this section. The most frequently commented area where more training was needed was in technology. In order for an instructor to feel comfortable teaching an online class he or she must first be

comfortable with the technology. Most stated in general the need for more technology training, but some specifically stated they wanted training in their course management software. Training was also wanted in the area of web page development programs with six specifically stating that they wanted HTML training. Eight indicated that they wanted training in developing and uploading videos, and four expressed the need for learning how to upload PowerPoint presentations. A few gave other specific areas of training including how to use Adobe Acrobat, Flash and Active Server Pages.

Other areas of training that were specifically mentioned as being needed were course content, student motivation, communication skills, time management, creating and implementing assessments, pedagogy, and academic honesty.

Thirty-two participants reported that they needed help in developing and managing course content. Items specifically mentioned were how to create the assignments, how to design assignments that let students work in groups, how to manage the assignments, how to write a syllabus with specifics about the assignments, and how to create interactive learning modules. Some stated that they wanted to design interactive assignments that would not overwhelm the students, but would keep them engaged. Several stated they would like to know how to effectively use group work in their classes.

Student motivation generated 22 responses. The instructors stated that they lacked training in how to motivate students and keep them on track. Several stated that they needed to know how to get the student to engage in the material, keep the students active in the class, encourage them to participate, and strategies to encourage students to manage their time and successfully complete the course.

Communication skills were specifically mentioned as an area where more training was needed by 20 participants. Some stated that they needed training in how to conduct and moderate discussions. Training was also needed in how to stay connected with students and how to make students feel comfortable. How to efficiently comment on each student's work and give prompt feedback was also mentioned as an area where training was needed. Some stated that communications skills also needed to be taught to the students including giving them netiquette guidelines so that students are not rude in the class discussions.

Time management was mentioned by 20 participants. Most stated that they did not realize how much extra time and work an online class would require. They needed help in setting limits so that they were not expected to be online 24 hours a day. Time management skills need to be taught for responding to student emails as well as communicating on the class discussions.

Sixteen participants expressed a need to learn how to develop and implement online assessments. Several needed to know the mechanics of creating and uploading tests and setting time limits. Others wanted to know how to use assessments in an online class. Lower on the list, but still mentioned were pedagogy and academic dishonesty. How to minimize cheating and how to prevent plagiarism were specifically mentioned.

A majority of instructors, 83, stated that they had to learn what they needed to know by trial and error. They learned as they taught the class. Many stated that it was mostly error at first, but each semester it improved. There were 52 who indicated that they learned what they needed to know by asking others for help. Forty-three responded that they took classes on their own to learn what they needed to know.

Another common statement was that they were self-taught. Some stated that they specifically read manuals or books in order to learn what they needed to know. Others stated that they did their own research for articles and websites with information about teaching online. Two stated that they studied the online class websites of others.

Some instructors stated that they get feedback from their own online students and then implement those suggestions. It should be noted that many of the instructors who responded to this question stated that they learned in more than one way. For example they may have stated that they learned by trial and error as well as going to workshops. One instructor stated that she never did learn what she needed to know and got so frustrated that she no longer teaches online (see Appendix I for more detailed results from questions F1 and F2).

Question F3 asked instructors to share any books, literature, training materials or websites that they found helpful and would recommend to other online instructors. Many shared websites with resources for instructors. Others shared the names of books, and two recommended software programs (see Appendix J for a list of the websites, books and software). Please note that the researcher is not necessarily recommending the resources, but is just listing what was provided by experienced online instructors. The researcher only included active websites at the time of the writing. Also, only books that could be found in either Amazon.com or Barnesandnoble.com were listed. There were also two training programs that were recommended. One was the online teacher training through the UCLA extension, and the other was the online teacher training through Cerro Coso Community college.

Findings

In order to ensure quality of online instruction it is imperative that instructors be adequately trained. This study pointed out the need for improving the existing training given to instructors. Many instructors specifically stated that they received no training at all to teach online, and many who did receive training stated that it was insufficient. Most instructors reported that they had to learn what they needed to know by trial and error. Many stated that they made errors their first semester and learned from their mistakes. Many also reported that they learned what they needed to know by asking other experienced instructors, and taking classes on their own or reading books and manuals.

Schools need to invest in training their instructors before they are thrust in to the world of teaching online. Most instructors, 69%, agreed that it is important to take an online class before teaching an online class. Part of the faculty development training could be done in an online format.

To ensure quality of online classes, many instructors reported that adequate technical support is important. Setting appropriate class size limits is also important. It is very difficult for an online instructor to personally communicate with each student through email if there are too many students in the class. Only 43% of the instructors indicated that they agreed that their institution sets reasonable class size limits. Many stated that their school had no limits at all, or that the class size limits were over 35 in the class.

The use of threaded discussions in online classes was important to 84% of those taking the survey. Many specifically commented that the discussions are what give life

to their class, or that it was the focus of the class. Therefore, it is important that instructors be trained in how to create effective discussion questions and how to skillfully facilitate those discussions.

Instructors reported that providing a mentor for first time online instructors is important. There were 74% who agreed that mentors are important, while only 15% were provided a mentor. Student evaluations were seen as important by 90% of the instructors, and only 42% reported that their institution used student evaluations. There were 76% who agreed that administrative or faculty evaluations are important and only 31% who reported that their college requires those evaluations. Faculty forums where instructors can communicate with each other and share ideas was reported as being important to 62% of the participants, and only 32% had one available to them.

Finally, ongoing training and technical support is critical for online instructors. Many instructors reported that their technical support area was under-staffed and that they were only available Monday through Friday during the day. Instructors also reported that they wanted training offered on a regular basis on more advanced topics so that they could improve their online classes. The training should be online or flexible enough so that it can accommodate busy instructors or adjunct instructors who also hold other full-time jobs.

The important issue is the quality of the online classes that are being offered. Most instructors could teach an online class if they were coerced to, but with little or no training, the course may not be of high quality. Institutions do not want to jeopardize their reputation by offering poor quality online courses. This study showed that many institutions do not provide adequate training. Still, some instructors were able to get

good training through training programs in place at other institutions, but only 40% of the participants reported that their institution required adequate training. Only 18% indicated that their institution provided satisfactory incentives to compensate for the extra work entailed in creating an online class. Only 42% reported that their institution set appropriate class size limits, and only 15% stated that they were provided a mentor.

Summary

Clearly there is much room for improvement. Colleges need to set priorities in order to ensure quality in their online education including requiring instructors to be trained before they teach online, even if that means sending the instructors to another institution for the training.

Colleges need to put mentors in place to help new online instructors as well as have technical support available. Student evaluations give helpful feedback as do administrative and peer evaluations, and they should be required. Online classes should have a maximum limit of 35 students in order for instructors to have time for individual communication with students. Finally ongoing training should be provided in areas where the instructors report that they need more help.

Chapter 5

Conclusions, Implications, Recommendations, and Summary

Conclusions

The research questions that were established for this study were answered from the results of the survey. Listed below is each research question with the answer derived from this study.

What are the scopes and sequences of existing training programs that prepare instructors to teach online?

There are many training programs available for teaching instructors how to teach online including programs from individual schools as well as larger programs. The Faculty Online Training offered through the Connecticut Distance Learning Consortium and the Faculty Online Technology Training Consortium offered through the Maryland Faculty Online are two training programs. Another source of training is through OnlineLearning.net (Olnet). In California, Cerro Coso Community College has been a leader in providing training for online teachers. There is no state-wide requirement, however, for instructors in California to be trained before teaching online.

Connecticut and Maryland Training

The Connecticut program offers the courses in three different course management systems including Blackboard, WebCT, and WebMentor. It offers practical teaching tips as well as advice from the student perspective (CTDLC, 2006). The Maryland training

offers four online training modules which include getting started, teaching an online course, training others to teach online, and training that is specific to a discipline (MFO, 2006).

Olnet Training

Olnet is a supplier of faculty training for the UCLA Extension, University of San Diego, Walden University and others. It offers accredited graduate level classes. The executive director is Susan Ko, the co-author of a popular book entitled *Teaching Online: A Practical Guide* (published by Houghton Mifflin in 2000). The training is a cohort based series with six classes which are each one week long.

Introduction to the Software Environment and Online Teaching is the first class. It includes how to create class announcements with instructor information as well as participation in guided discussions. The second week's class is Designing and Developing your Online Course which includes uploading and organizing course materials. Teaching and Managing your Online Course is covered in week three which includes participating in threaded discussions as well as chat sessions. The class for week four is Enhancing your Online Classroom which includes creating online assessments and integrating multimedia. Setting up Your Classroom is the name of the class for the last two weeks. It includes using an electronic grade book as well as working with groups and site management (Olnet, 2006).

Cerro Coso Training

Cerro Coso Community College (CCCC) is part of the California Virtual Campus (CVC). The CVC website has a professional development page that directs faculty to training at CCCC. A Certificate in Online Teaching is offered at CCCC. The training is online and can be completed in one semester. There are seven classes in the series for a total of 8 units. Five of the classes are two weeks long and are one unit, and two classes are three weeks long and worth one and a half units. The classes are taken consecutively, and the first class is Faculty Orientation to Online Learning which familiarizes faculty with the skills that students need to become successful online students. The instructors taking the class participate in the Becoming a Successful Online Student class, so that they can see what the students learn in the orientation class. Participants learn to send assignments as attachments, interact on a threaded discussion, and learn other online course skills.

The second class is an Introduction to Online Teaching and Learning which is three weeks long. The class covers the design, development and teaching of an online class. It also covers learning theory that relates to online education. Participants look at different ways to present content.

The third class is A Practical Guide to Online Course Management Strategies. The class offers strategies to help with online class management and improve communication.

Introduction to The Development of Web-based Course Content is the fourth class. The class teaches faculty how to use Microsoft FrontPage to develop online

classes. Participants create parts of an online class as well as learn how to include content from their own discipline.

For the fifth class, participants have the option of taking Developing and Managing an Online Course with Microsoft FrontPage or Survey of Course Management Software. The first class goes more in depth on how to use FrontPage to create and manage interactive elements of an online course. The survey class gives an introduction to different course management software programs.

Introduction to Multimedia for Online Teaching is the fifth class where participants are given an overview of multimedia content delivered over the Internet. Participants will create audio and video files and put them in web-based lessons. This class is the other three week class.

The final class in the series is Accessibility for Web Course Development. It teaches how to design courses that are accessible to all students, including those with disabilities (CCCC, 2006)

The online training is now offered at various locations. The professional development section of the CVC website gives a list of certified trainers at various California Community colleges and their email addresses. In addition, CVC offers training through the @ONE technology training organization at Evergreen Valley College. The @ONE project was first funded by the California Community College Chancellor's office to provide comprehensive statewide training in California (CVC, 2006).

What have experienced online instructors found lacking in their preparation?

The most common response for what was lacking in their preparation was technology training. Instructors stated that they wanted training in the specific course management software that they were using, as well as training in HTML, web development software, how to create and upload videos and audio files, and how to upload PowerPoint presentations.

Instructors also stated that they lacked training in how to create and manage online assignments, including how to create interactive learning modules. They also wanted training in how to efficiently grade student work and give prompt feedback. Student motivation was also an area where training was lacking. Instructors reported they needed to learn how to motivate the students to keep them engaged and active in the course. Instructors also lacked training in communication skills including conducting and moderating discussions.

Time management was an area where most of the online instructors were under prepared. Many stated that they did not realize how much time it took to teach an online class. They wanted training in efficient ways to manage their time communicating with students through email and threaded discussions. Many wanted advice on how to set time limits on how soon they should reply to students.

Creating online assessments was another area where instructors lacked training. Many did not know how to create an online test and upload it to the class website. Some did not know how to time the tests or protect the tests. Some wanted training in different types of assessments for online learning. Pedagogy and academic dishonesty were also areas where teachers lacked training.

What do online instructors report that they had to learn on their own?

Instructors stated that they had to learn on their own all of the areas mentioned above including technical skills, creating assignments and assessments, communication, and time management skills.

Most learned what they needed to know by trial and error. As they taught a class they learned the hard way by making mistakes. Many reported that they learned by reading manuals and experimenting. Most also learned by asking other experienced instructors for help or advice. Some went to workshops or conferences and some took classes on their own. A few learned from their online students how the class should be changed.

What are the new competencies that online instructors need to acquire?

Online instructors need to be competent in converting traditional classes to online classes, creating online syllabi, meeting the needs of online learners, facilitating an online class, effectively communicating through asynchronous methods, creating online assignments, creating online assessments as well as competency in technology. More detail is provided below.

Online instructors need to be competent in converting traditional classes to online classes including how to create a complete online syllabus that allows students to know what is expected of them. Instructors need to meet the specific needs of online or adult learners including flexibility of time, and assignments that are relevant that include interaction with other students.

Competency in how to facilitate an online class is critical. The role of the teacher in an online class is different than a face-to-face class, and the instructor needs to create class discussions that provide the opportunity for critical thinking and deep learning through reflection on the comments of other students. Deep learning can occur when the instructor competently facilitates the discussion by guiding and encouraging, but not jumping in too frequently. The instructor needs to be a motivator and make sure that all are participating and no one is dominating.

Online instructors need to effectively communicate with students through email as well as the discussions, and they need to be aware of proper netiquette and how to support students. Instructors need to be competent in creating effective online assignments, with a balance between independent assignments with explicit directions and collaborating assignments. Assessments in online classes are usually different than in traditional classes, and instructors need to be competent in how to create practical online assessments. Instructors also need to be able to recognize and prevent cheating and plagiarism. Finally they need to have adequate training in technology so that they can focus their time and attention on the class itself, rather than on the frustrations of trying to learn the technology.

Based on a needs assessment through surveys and research of the literature, what should be included in a faculty development handbook to prepare and support instructors for online teaching?

A faculty development handbook should list the major competencies needed by online instructors as well as specific objectives of the training. There should be

technology training specific to the software used by the instructors of that particular college. In addition, there should be training in how to develop an online class website and how to develop an online course syllabus.

Asynchronous communication is the heart of an online class, and there should be specific training in how an instructor communicates with students both through email and class threaded discussions. There should be training in how to facilitate and moderate those discussions as well as encourage students.

Assignments in an online class should meet the needs of online and adult learners with practical real-world assignments and interaction. Instructors need to be trained how to upload, grade and manage assignments and how to develop effective individual and group assignments. How to create and manage assessments should also be taught to instructors, as well as how to prevent cheating and plagiarism.

Ongoing training is important, and the faculty development handbook should list possible areas of advanced training such as streaming video, and other more advanced technical applications. Please see the section below entitled “A Faculty Development Handbook for Quality Online Instruction” for more detailed information about what should be included in the handbook.

Implications and Recommendations

The results of this survey indicate that most instructors had inadequate training when they started to teach online and that they had to learn on their own or by trial and error. Also, online instructors are not getting the administrative support that would help ensure quality in online classes, such as providing mentors, requiring training before

teaching online, and administering student and peer evaluations that could give useful feedback for improving classes. Support is also lacking in the area of providing a means for online instructors to easily share ideas with each other, providing adequate technical support, and setting a reasonable class size limits.

It is recommended that all institutions at the very least require that instructors go through a training process before starting to teach online, even if they need to go to another institution to take the training. Through the research of the literature major competencies for online teaching emerged. The survey confirmed that those competencies were seen as important by the majority of experienced online instructors. The instructors indicated that it is important to be competent in the technology skills needed for creating and maintaining an online class website. They must also know what should be included in an online class, how to create an online syllabus, asynchronous communication skills, facilitation and moderating skills, how to create online assignments, how to create online assessments including how to prevent plagiarism, and how to meet the needs of online learners.

To ensure quality it is vital that online instructors are well-trained, and the first step is to set the goals of the training. A search of the literature showed that no consistent goals have been established for training online instructors. A faculty development handbook was developed based on the results of the survey and is presented in the section below.

A Faculty Development Handbook for Quality Online Instruction

Quality online instruction is a goal of all institutions that provide online classes. Quality can only be ensured if the faculty members are adequately trained and prepared to teach online.

Listed below are recommended objectives for beginning, intermediate and advanced faculty development sessions. Beneath each objective is a short explanation as well as a possible assignment or activity to be used in the training. Instructors should be able to take the beginning training if they feel they need it. Other instructors may choose to take advanced training. The intermediate course is meant to be required for all instructors before they teach online

The objectives are numbered and presented in the suggested order to be taught. The training, however, does not necessarily need to be completed in sequence.

Beginning Training

Objective	1	Send an email with an attachment and receive an email with an attachment.
		Teach how to send an email with an attachment, and how to open an attachment when one is received.
Assignment		Instructors send emails with attachments to each other.

Objective	2	Format web pages with simple HTML commands or with a web development program including how to bold, change font size, color, insert images, create a blank line & create a hyperlink.
		Teach instructors basic HTML code or teach how to use a simple web development software program such as Microsoft FrontPage or Dream Weaver and have them look at the code.
Assignment		Instructors create a web page with some text that is bold, large font and red. They should also insert an image and create a link to another website on the Internet.

Beginning Training

Objective	3	Read information about the Internet, the World Wide Web, browsers and search engines.
		Instructors read a prepared handout about the basics of the Internet as a large network of linked computers, the World Wide Web which is a collection of web pages stored on many computers, the purpose of browsers such as Internet Explorer which is to interpret code to display web pages, and the basics of search engines.
Assignment		Instructors take a self-evaluation assessment on the reading material with multiple choice answers.

Objective	4	Read information about Internet Service providers and the different ways users can connect to the Internet including dial-up connection, DSL (Digital Subscriber Line) connection, Broadband (Cable) connection, Satellite connection, and wireless connection to the Internet.
		Instructors read a prepared handout about the different ways to connect to the Internet such as dial-up, DSL (Digital Subscriber Line), Broadband Cable, and Satellite so that they can understand how students can gain access to their class website.
Assignment		Instructors take a self-evaluation assessment on the reading material with multiple choice answers.

Objective	5	Read about rules of netiquette.
		Instructors read a prepared handout and / or find information on the Internet about the rules of netiquette.
Assignment		Instructors take a self-evaluation assessment about netiquette with multiple choice answers.

Intermediate Training

Objective	1	Create the skeleton of a class website including an announcement page using the course management system or web development software that is preferred by the college.
		There should be specific training in whatever software program the college uses. For example, if instructors are required to use Blackboard, then the basics of how to create a complete class website with Blackboard should be taught.
Assignment		Instructors use their own class information for the training session and create the shell of a website for a particular class using the college preferred software. Add a default announcement that will be displayed the first day of class.

Objective	2	Post staff information to the class website.
		It is important that online students feel a connection to the online instructor and that they are seen as a real person. There should be an area on the class website that gives information about the instructor such as educational background, hobbies, or even family information. A picture is also encouraged. Course management programs usually have an area for staff information. If creating the website through some web development software program, a separate page of information about the instructor could be created, and there could be a link to it in the syllabus, or the information could be put in the syllabus.
Assignment		Instructors write up information about themselves and post that information on the class website. Also upload a photograph if possible.

Objective	3	Create an online syllabus and post it on the class website.
		The syllabus is an important contract between the instructor and student. It is important to include class rules and policies as well as contact information (see Tips for Developing an Online Syllabus below).
Assignment		Instructors create an online syllabus and add it to their class website. All instructors in the training session can share what information they are including in their syllabus and discuss.

Intermediate Training

Objective	4	Upload assignments to the class website.
		Assignments in an online class may be different than in traditional classes (see Tips for Creating Online Assignments below).
Assignment		Instructors develop at least one assignment and upload it to the class website they created.

Objective	5	Create a threaded discussion on the class website.
		Threaded discussions are important for online classes to make sure that students do not feel isolated. Research has shown that it helps prevent students from dropping out of an online class (see Tips for Student to Student Communication below).
Assignment		Instructors create at least one threaded discussion on the class website they created. In addition, instructors should use a threaded discussion as part of the training sessions. The trainer should have a site available where those in the training can discuss a topic through a threaded discussion.

Objective	6	Upload a publisher's e-pack to a class website (if the instructor uses e-packs).
		Many publishers are now providing course packs or e-packs that can be uploaded to a course management software program.
Assignment		Instructors should upload an e-pack to their class website (trainer should provide an e-pack from a publisher for practice.)

Objective	7	Create a test on the class website.
		Assessments in an online class may be different than a traditional class (see Tips for Creating Online Assessments below).
Assignment		Instructors create a short multiple choice test and upload to their class website. If the publisher for their textbook has a test bank, instructors should practice creating the test using the test bank. If the course management system allows tests to be timed and randomly generated, then instructors should try those features.

Intermediate Training

Objective	8	Score tests and use a grade book on the class website.
		Some programs automatically score tests and put them in a grade book for instructors. Others score tests, and instructors manually put in grades into a grade book program.
Assignment		Instructors take the test that they created in Objective 7 and then score the test or check the score and store in a grade book program.

Objective	9	Create and upload a PowerPoint presentation to a class website.
		Instructors can create a simple PowerPoint presentation in the training, or they can use prepared PowerPoint presentations that are provided with the publisher of their textbook.
Assignment		Instructors upload a PowerPoint presentation to an existing class website.

Objective	10	Read information about online pedagogy (andragogy).
		Online students are more likely to be adults than in a traditional class. Methods of teaching online are usually different than teaching traditional classes. Instructors should read a prepared handout with information about online pedagogy/ andragogy.
Assignment		Instructors take a self-evaluation assessment on the reading with multiple choice answers.

Objective	11	Read information about the art of teaching online including managing time, how to moderate a threaded discussion, how to prevent plagiarism, best practices for communicating online, and other helpful information provided by experienced online instructors.
		Instructors should read a prepared handout with information about managing time, moderating a discussion, communicating online, preventing plagiarism and other tips for teaching online (see tips below). A list of useful books and websites on the topic should also be provided.
Assignment		Instructors take a self-evaluation assessment on the reading with multiple choice answers.

Intermediate Training

Objective	12	Read information that research has shown helps the quality of online instruction including giving student and administrative evaluations, use of mentors, class size limits and communicating with other online instructors.
		Instructors should read a prepared handout with information about ensuring quality in an online class (see Tips for Ongoing Training and Quality Assurance).
Assignment		Instructors take a self-evaluation assessment on the reading with multiple choice answers.

Objective	13	Read about website accessibility.
		Instructors should read a prepared handout with information about how to make websites accessible to all students, even those with disabilities. In addition websites should have consistency and ease of navigation for all students. There are regulations in place for accessibility, as well as programs available to check websites for accessibility. If possible expand the assignment to allow instructors to use a website evaluation program to check their website for accessibility.
		Instructors take a self-evaluation assessment on the reading with multiple choice answers.

Objective	14	Read books and explore websites that experienced online instructors have found useful.
		Instructors should be provided with a list of useful websites and other resources. Instructors should read that prepared handout.
Assignment		Instructors explore the websites and resources given, as well as search for other useful websites for online teaching using a search engine. Share those new resources with other instructors in the training, possibly through a threaded discussion.

Advanced Training

Objective	1	Create and upload a tutorial or video using a video software program.
		The software program used may be different depending on what the school has available. There are good programs that can allow teachers to create tutorials by capturing what they type and say on the computer. Another possibility is recording their traditional class.
Assignment		Instructors create a video using a software program. Upload that video to an existing class website.

Objective	2	Backup a complete course website in order to use again another semester.
		There is a huge amount of time invested the first time an instructor creates a class online. The instructor should be able to backup the website in order to use it again with only minor modifications.
Assignment		Instructors backup their course website. How to complete the backup will depend on the software they are using to create the website. If a course management system is used, then instructors should backup using that system.

Objective	3	Use an instant messaging program.
		Instant messaging programs can be a valuable tool to use occasionally when students want an immediate answer from an instructor. For example if an instructor has a set office hour for an online class, students can instant message the instructor. There are different programs available. Several are available free online to download. Instructors should provide instructions for students on how to download and use the program.
Assignment		Instructors pair up and instant message each other.

Objective	4	Use a chat program.
		A chat program can also be used occasionally so that all students can communicate in real time. The disadvantage is that it removes some of the time flexibility, which is the reason many students take classes online. The chat could be optional. There are free chat programs that can be downloaded from the Internet. Instructors should provide instructions for students on how to download and use the program.
Assignment		Instructors in the training session chat with each other using an online chat program.

Advanced Training

Objective	5	Use advanced search engine techniques to find some specific information on the Internet.
		Instructors should be taught advanced search techniques for using search engines. They should be taught how to use keywords, Boolean operators and other search techniques using various search engines.
Assignment		Instructors should be given a topic to find some specific information. For example, information about Netiquette or something even more specific. Instructors could then share the information with each other.

Objective	6	Create assessments to evaluate the success of online classes.
		Instructors should be taught how to create assessments and other ways to get useful information from their online students so that the feedback could then be used to improve future classes.
Assignment		Instructors brainstorm either face-to-face or on a threaded discussion forum about possible questions to ask students in their classes in order to get useful feedback on the value of the online class and what could be done to improve the class. Instructors then create an assessment that could be used in their own class.

While the above is not an exhaustive list of what an instructor needs to know to teach an online class, it is a good start, and should be a minimum requirement. In addition, the institution should provide ongoing training and support where the instructors report it is needed. Below are some tips that were provided by experienced online instructors.

Tips for Developing an Online Class Website

- Plan ahead to allow plenty of time to create the class website. It is very time consuming the first time because it is important that it is complete with all the assignments when the class starts.
- Talk to experienced teachers to see what they put on their class website.
- Look at other online class websites to see how they are organized.
- Websites should be easy to use and intuitive. Test the website on a few students before the class starts to make sure that students can easily navigate the website.
- Customize the icons rather than using the generic ones that come with a course management program.
- Create a class announcements section to post important messages, clarification of assignments, reminders of due dates, if instructor will be out of town, etc. Instructor can have a regular day that a new announcement is posted – such as every Monday so that students will always check that day.
- A list of the names of all the students in the class with their email addresses is helpful so students can contact each other individually. Pictures can help students get to know each other, but should be optional. Students could submit a photo on a voluntary basis.
- Pages of text should be easy to read. Use bullets, highlighting, blocks of text with spaces between, or other formats to make it more readable.
- A Frequently Asked Questions (FAQ) page on the website helps reduce the instructors' time spent individually answering student questions. When students ask you a question in an email, type an individual response, and then add that question and answer to the FAQ page.
- Backup your website and everything on it fairly regularly onto some removable medium such as a CD or USB drive.

Tips for Developing an Online Syllabus

- The syllabus is a contract between students and teacher. Instructors should carefully consider what is put in it because instructors must abide by it. For an online class the syllabus should be much more detailed than for a face-to-face class. Expectations should be made very clear.
- The syllabus should be posted by the first day of class and remain on the class site for the entire class.
- The syllabus should tell students the required materials including the textbooks and how to obtain them.
- The syllabus should let the students know of the computer skills that are necessary for the class. List the characteristics of a successful online learner such as organized, self-starter, detail person, etc. It is a good idea to direct students to a self-assessment where they can see if they are a good fit for an online class.
- The syllabus should detail how students contact the instructor including the preferred email address. The instructor should have specific office hours, as well as be available through email at other times.
- The guidelines for how soon the instructor will respond to emails should be established in the syllabus. For example, will the instructor respond to an email within 24 hours? Will the instructor be available on weekends? Each instructor should set his or her own rules, but they should be detailed in the syllabus and then followed.
- The course goals and objectives in measurable and observable terms should be listed in the syllabus. There is less anxiety for the students if they know what to expect.
- There should be one page of all assignments and tests for the entire class with the due dates. The assignment listing allows students the flexibility of working ahead if needed.
- There should also be separate pages for each assignment with detailed instructions, and expectations. Grading scale and weighting of assignments should

also be included. The directions should be so clear that students can do the assignments on their own.

- Rules of class behavior should be listed in the online syllabus. State that students must communicate in proper professional English – no net-slang, no abbreviations, no using all lower-case, no using all upper-case, etc.
- Create a summary page of important Netiquette rules that students in the class should follow. There could also be links to online websites with information about netiquette.
- Set guidelines for discussions including frequency. Students should know how many posts are required and how many would be considered excessive. Students should be taught that postings should be significant and add to the knowledge base. There may be rules against posting messages such as “I agree.”
- The drop policy should be detailed. For example if the student fails to post to the discussion thread for two weeks, then the student has been “absent” two weeks and can be dropped from the class. Other reasons for dropping may include inappropriate postings on the class discussions or cheating.
- An academic dishonesty policy should be in the syllabus. A standard campus-wide policy could be used, or the instructor can set guidelines for cheating and plagiarism.
- Late submission policy should be specified in the syllabus. For example, can assignments be turned in late for half-credit or point reduction? Also, can assignments be submitted early? Will the instructor grade assignments when received, or will the instructor wait until the assignment is due?
- Let students know how many hours per week they will be expected to invest in the class.
- Warn students that they need a backup plan if their computer crashes.
- If the institution has computer usage policies, include them in the class syllabus.
- Give a quiz on the items in your syllabus to make sure students read it.

Tips for Instructor to Student Communication

- The communication between the instructor and each student is important. The instructor can influence whether a student is successful in the course.
- Instructors must be available outside traditional on-campus hours, but the specific hours of availability and how soon a response can be expected should be outlined in the course syllabus. Students may panic if they feel they cannot reach you.
- Check your email every morning before getting involved in other daily tasks. Check email at least one other time per day.
- Prompt feedback is important for the students, but also important for you as the instructor so you do not get behind and overwhelmed.
- Students are less likely to drop if they receive quality attention from the instructor. Emails should start with the student's name, such as "Dear Mary," or "Hi Tom," so they know it is an email personal to them. Write encouraging and supportive email messages.
- Make sure emails to students are long enough to explain what you mean. Short abrupt email messages may come across as rude to a student.
- Insist that students use an identifying subject line in their email messages to you. You can give guidelines as to what you want them to put in the subject line. (That way you can also set up folders in your email system to separate incoming emails.)
- Consider insisting that students have an email account with their name as the username so that you can easily identify the emails. It is not easy to remember all the emails if they have addresses like prettygirl4@yahoo.com. Insist they sign their emails.
- Instructors should learn how to encourage and motivate students. An email with a "good job" can go a long way for boosting self esteem.
- Instructors should keep emails or copy and paste contents of emails into a document. It is helpful to be able to go back and view a communication with a student.

- If there is a misunderstanding, have the student come see you on campus if possible. Calling the student on the telephone can also help quickly resolve a problem.
- If you are irritated with a student, allow a cooling off period before sending the student an email to reprimand.
- Answering individual questions is what makes a quality online class. Otherwise it could just be automated with no instructor.

Tips for Student to Student Communication

- Students should be able to communicate with each other similar to a class discussion. This communication will normally be asynchronous so that students have the flexibility to read and post at their convenience. Students report that an audience of peers in the discussion is what keeps them motivated to complete the assignments. Conversational interactions also help students learn and process what they are learning.
- The discussion groups should not be too large. If the class is large, then divide into subgroups. It is time consuming for students to read through the postings of a large class.
- The first discussion should be an introduction discussion where students introduce themselves to each other. They may tell others why they are taking the class, about their career goals, about their hobbies, family, or anything else they are comfortable sharing.
- The instructor should model good behavior and dialog in the discussions.
- Weekly discussions are encouraged with a specific question or topic each week so that students do not feel isolated. Open-ended questions are best where there is no one right answer. Students can post their opinion and also view the opinions of others.
- Electronic discussions can be more meaningful than classroom discussions, because students have time to reflect on their answer and can synthesize what the other students have said.

- The shy students feel more comfortable participating. No one has an advantage, and social status, disabilities, race, age, or other physical characteristics do not matter.
- Because the discussions are “permanent” students can go back and re-visit the discussions to reflect on what they have learned. Instructors should base part of the class assignments and grades around discussions.
- An online instructor is not the “sage on the stage”, but rather the “guide on the side”. The instructor should facilitate threaded discussions. The instructor should encourage students to ask questions and participate and give positive responses to postings.
- As a facilitator the instructor should not jump in too frequently with an answer or the students will not feel comfortable sharing their opinion.
- The instructor should monitor to make sure that all students are participating. The discussions should be graded to make sure students participate.
- The instructor should encourage critical and reflective thinking.
- As a moderator the instructor keeps the students focused on the discussion, and also makes sure that one student does not dominate the discussion. If necessary, email individually to encourage a particular student or to let a student know if they are dominating the discussion.
- Instructors should monitor the discussion board daily to make sure that there are no inappropriate postings and that good netiquette is being followed and that students are respectful of others.
- Instructors should not reply to each student for every posting. Reply to a few good answers to encourage. Keep track of which students you replied to so that for the next discussion you can reply to different students. Make sure each student has a personal reply occasionally.
- The instructor should summarize and synthesize all of the comments at the end of each discussion. Highlight excellent answers or common misconceptions.
- Have a discussion board just for students to informally communicate with each other. The instructor can stay out of that discussion board, unless a student emails that there is a problem.

- Consider having optional chat sessions where students can discuss problems or questions in real time. Capture those sessions and post so that all students can read the sessions even if they were not available to participate.
- Post a rubric on how their interaction and participation will be assessed. Let them know that they should expect to spend at least the same amount of time communicating in online discussions as they would in a traditional class.

Tips for Creating Online Assignments

- Weekly graded assignments help keep students on track so they do not fall behind.
- There should be a balance between group discussions and individual assignments. Online classes offer the flexibility of allowing students to work on their own at their own pace but with specific due dates. The group discussions allow students to reflect on and synthesize their learning.
- There should be no ambiguity in the directions for the assignments because students will be working on their own for many assignments without the instructor monitoring. Give your assignments to someone who does not know the material to see if the instructions are clear to them.
- Online assignments and discussion questions should incorporate several levels of Bloom's Taxonomy and require learners to apply, analyze, synthesize or evaluate the course content.
- For online learning, constructivist methodology works best where students learn by reflecting on their own experiences to construct knowledge. When other learners share their own experiences, students can have more input as a basis for learning.
- Instructors should mix media delivery to make sure to accommodate all learning styles. Consider creating videos or audio clips to put on the class website as well as text. PowerPoint presentations can also be used. The

instructor could mail a CD of audio and video clips to students who have slow Internet connections

- Assignments should be linked to what students will do or see in the real world. Student-centered relevant tasks work best for online students.
- Instructors can take advantage of all of the rich resources on the Internet and provide links to helpful websites. Too many links, however, can be overwhelming.
- Give students assignments where they can research information on the Internet if the subject area lends itself to it. Have students write a journal of what they have found.
- Assignments will be different depending on the subject being taught, but in faculty training sessions there could be small groups formed by discipline where instructors could brainstorm about types of assignments that could be used in their subject area.
- The use of online groups for collaborative work is encouraged. Faculty development training could have small groups that work on a project together online to try it out.
- Have the students do or create something and then post it to share with the rest of the class. Other class members can comment on the work.
- Instructors should let students know the guidelines about when and how assignments will be graded. For example, if a student submits an assignment early, will it be graded at that time? The instructor may print assignments as they come in, but wait and grade them all at once. Give a date when grading will be completed and let students know if you are delayed.
- Students should receive an email confirmation from the instructor when an assignment is received, even if it will not be graded right away. The email assures students that their assignment was properly submitted.
- Send individualized emails with assignment grades and comments.
- Many instructors prefer using Sunday at midnight as the deadline for assignments. A Sunday due date allows online students the flexibility of

completing assignments on the weekend when it is less likely they have other commitments.

- Instructors should save all student assignments that are submitted for the entire semester in case there is a question later about whether an assignment was submitted.
- Instructors should post grades anonymously by student ID on a certain day of the week, or email students their up-to-date grades the same day every week.
- Every time a student emails you with a question about an assignment use that to make a clarification in the directions for that assignment.
- Student complaints or concerns give valuable feedback for improving the course.
- It is important in an online class to have a good textbook that is very thorough.
- You can make CDs or DVDs with videos that show how to do assignments if the assignments are technology-based. The discs can be mailed to the students.
- Record lectures and post on the class website. An inexpensive digital recorder can easily record lectures. Students can listen to them more than once.

Tips for Online Assessments and Preventing Plagiarism and Cheating

- Assessments are used to measure learning. Usually grades in an online class are based less on formal tests, because students can easily have the book in their lap.
- If using objective tests such as multiple choice tests, have them timed so that students have a limited time to take the test and do not have the time to look up answers. Also if the software program allows, have the questions randomly generated. Set usernames and passwords to restrict access to tests.
- Multiple choice self-assessment tests can be useful to give immediate feedback. Many instructors allow students to keep re-taking tests until they get the answers correct. These can be open-book. If questions are randomly

generated from a large pool of questions, then they may have some new questions each time they take the test. Give the students points for doing the self-assessments. The goal is to have the students learn.

- Assignments can be the major assessment tool to measure student performance. Assessments based on their contributions to the discussions are also encouraged.
- Short answer or short essay assessments are usually harder for students to cheat.
- Use a software program such as Turnitin to check papers for plagiarism. If a software program is not available, put phrases from a student's paper in Google or other search engine to see if the student copied and pasted their work from the Internet.

Tips for Meeting the Needs of the Online Learner

- Online learners are frequently working adults and it is important to post all the assignments at the beginning of class so students can work ahead if needed.
- Online learners want assignments that are linked to what they will do or see in the real world.
- Adult learners want immediate application of their assignments with relevant learning tasks. Adult learners like to share life experiences.
- Online learners have reported that they want interaction with other students in the class through threaded discussions to help keep them motivated.

Tips for Ongoing Training and Quality Assurance

- Offering at least some of the training online can help give the time flexibility that instructors need as well as give them the experience of learning in an online format.
- Instructor training should be evaluated by the instructors that took the training. That feedback should be used to improve future training sessions.
- Instructors should be able to give suggestions as to areas where they want training in the future, such as more advanced topics.
- Allowing a new online instructor access to observe an online class with an experienced instructor can give the new instructor helpful information.
- Mentors for first time online instructors are helpful to ensure quality of new classes.
- Instructors keeping portfolios of online syllabi, assignments, assessments and other items are helpful if they are shared with other instructors at training sessions.
- Faculty Forums where instructors can share teaching strategies or ask other instructors for help can help ensure quality.
- Get regular feedback from students throughout the semester. Individually email students back to let them know that you care about their feedback. Make notes to yourself so that you can use the feedback to improve future courses.
- Administrative and peer evaluations of online classes are also helpful for maintaining quality in the online courses.
- Successful practices of other instructors should be compiled and shared with new teachers.
- Class size should have definite limits, and should be no larger than 35 to ensure quality communication between students and the instructor.
- Borrow or purchase books about online teaching, search the Internet for helpful suggestions or sample online classes, take workshops and other classes available.

- Brainstorm with other online instructors. Create a threaded discussion or some other way to regularly communicate with other instructors.

Recommendations for Additional Studies

The quality of online education can be influenced by more than just the training of the teachers. There are other issues that could be explored further. Incentives for encouraging instructors to teach online, intellectual property rights and course ownership issues are areas that should be researched further. The specific administrative support that needs to be given to online instructors should also be further explored. Student administrative support and also preparing students to take online courses are also possible future topics.

Summary

There has been a huge growth in the offering of online classes (Quilter & Weber, 2004). Some instructors have been pressured into teaching online without adequate training causing a lower quality in the classes (Smith, Ferguson & Caris, 2002). Training instructors before they teach online is vital. Instructors must make a transition to the new role of being a facilitator in a class rather than a lecturer (Salmon, 2003). There are specific skills and strategies used in online classes that are different than traditional classes (Waterhouse, 2005). Training for instructors should be formalized, structured and required with some reward (Kelley, 2002).

Colleges and universities need to establish the objectives for training online teachers. In order to do that, an in-depth analysis of online training needs should be

completed (Goodyear, et al, 2001). A search of the literature showed that no comprehensive objectives for a faculty development program have been established.

This study was conducted to find out the competencies that instructors need to teach online in order to establish the training objectives. Major competencies were discovered which include:

- How to convert a traditional class to an online format,
- How to create an online syllabus,
- How to meet the needs of online learners,
- How to become an online facilitator,
- How to skillfully use asynchronous communication,
- How to create and manage online assignments and assessments,
- How to prevent cheating and plagiarism, and
- How to use the software to create an online class

Converting classes to an online format requires more than just putting the contents of a face-to-face class on a website. Different assignments and teaching strategies must be used (Ko & Rossen, 2001; Lewis & Blair, 2003; Weller, 2002).

An online syllabus needs to be much more explicit than one for a traditional class and should at minimum include course description, goals, expected outcomes, readings, activities, assignments, grading policies, participation guidelines, instructor office hours, contact information, and computer skills necessary to take the class (Bickle & Carroll, 2003; Carnes, et al, 2003, Ko & Rossen, 2001). In addition it should excite the students about what they will be learning the way an instructor does the first day in a traditional class (Farrell, 2001; Morris, 2002).

Online learners have different needs than those in a traditional class. Many are adult learners who cannot attend classes because of other commitments. They need flexibility and relevant classroom assignments (Bennett & Lockyer, 2004; Palloff & Pratt, 2001).

Instructors need to learn techniques to facilitate discussions in an online class. Much deeper learning can take place in an online class because of the fact that students can read the ideas and opinions posted by other students and reflect on those postings. Instructors must learn to summarize discussions and have students analyze and synthesize arguments (Barker, 2003; Salmon, 2003; Weigel, 2002).

Communication in an online class is typically asynchronous, meaning the instructor and student usually do not communicate with each other at the same time, but rather through posted messages in a discussion forum or through email. Because of the lack of visual cues, there can be misunderstandings and hurt feelings (Palloff & Pratt, 2001; Waterhouse, 2005). Interaction in an online class is vital so that students do not feel isolated (Maeroff, 2003).

Online assignments and assessments need to be designed specifically for the online class. Assignments should stimulate critical thinking skills and instructors should create assignments that encourage students to maintain regular progress in the class. Technical instructions should be provided in advance to help prevent problems (Bickle & Carroll, 2003). The lectures in an online class must be stimulating and informative because they are replacing the stand-up instructor. The instructor should use a mix of delivery media to keep students' attention (Farrell, 2001). Assessments may be different in an online class. Multiple choice and standardized tests may not be what is needed for

an adult online learner. Instructors should consider using diverse forms of assessments (Carnes, et al., 2003; Donar, 2004; Rovai, 2004; Weller, 2002).

Cheating and plagiarism are equally a problem in traditional and online classes (Heberling, 2002; Weller, 2002). Online instructors should learn how to spot assignments that do not flow properly because they have pieces from different articles copied and pasted together (Heberling, 2002). Instructors should also become familiar with each student's work to recognize changes, and also use the electronic access to assignments for comparison purposes (Hansen, 2003).

How to use software and technology is important for online instructors. Faculty development programs must include the technology training that will be needed (Barker, 2003).

A survey was designed to be administered to experienced online instructors. The major competencies discussed above were listed on the survey and instructors were to indicate for each competency if they agreed that training in that area was important. The main purpose of the survey was to determine the training needs of online instructors.

Emails with a link to the survey were sent, and approximately 900 experienced online instructors opened the emails. The response rate was about 32% with 287 completed surveys. About 74% of the instructors who took the survey were full-time college faculty members, and 86% had taught online for more than 4 semesters.

The overwhelming majority of instructors agreed that all the competency areas listed above were important. In most cases over 90% agreed. Only about half of the instructors indicated that their own training in each area was adequate.

Instructors were given the opportunity to write open-ended responses about their own training. Most instructors wrote that they had poor training and that they had to learn how to teach online by trial and error. Many stated that they also learned what they needed to know by reading, learning the technology themselves, and taking classes on their own.

Besides training there are other areas of administrative support that can help ensure quality of online classes. There were 74% of the instructors who felt that being provided a mentor was important, but only 15% were provided one. Student evaluations were important to 80% of the instructors, but only 42% indicated that their institution uses student evaluations. Many stated that it is important for institutions to have a requirement for training before teaching online but that their institution does not have requirements in place. Most instructors also reported that having a faculty forum where online instructors could communicate with each other would be valuable. Many instructors commented that their technical support was under-staffed and not available during evenings and weekends. There were 64% who indicated that their institution has inadequate incentives for teaching online, and many stated that their institution has no online class size limits.

A faculty development handbook was written based on the research of the literature and the results of the survey. The handbook includes learning objectives for beginning, intermediate and advanced training sessions. Listed below are those objectives.

Beginning Objectives

1. Send an email with an attachment and receive an email with an attachment.
2. Format web pages with simple HTML commands or with a web development program including how to bold, change font size, color, insert images, create a blank line and create a hyperlink.
3. Read information about the Internet, the World Wide Web, browsers and search engines.
4. Read information about Internet Service Providers and the different ways users can connect to the Internet including dial-up connection, DSL connection, Broadband connection, Satellite connection, and wireless connection to the Internet.
5. Read about rules of netiquette.

Intermediate Objectives

1. Create the skeleton of a class website including an announcement page using the course management system or web development software that is preferred by the college.
2. Post staff information to the class website.
3. Create an online syllabus and post it on the class website.
4. Upload assignments to the class website.
5. Create a threaded discussion on the class website.
6. Upload a publisher's e-pack to a class website.
7. Create a test on the class website.
8. Score tests and use a grade book on the class website.
9. Create and upload a PowerPoint presentation to a class website.
10. Read information about online pedagogy (andragogy).
11. Read information about the art of teaching online including managing time, how to moderate a threaded discussion, how to communicate online, how to prevent plagiarism, and other helpful information provided by experienced online instructors.
12. Read information that research has shown helps the quality of online instruction including giving student and administrative evaluations, use of mentors, class size limits and communicating with other online instructors.
13. Read about website accessibility.
14. Read books and explore websites that experienced online instructors have found useful.

Advanced Objectives

1. Create and upload a tutorial or video using a video software program.
2. Backup a complete course website in order to use again another semester.
3. Use an instant messaging program.

4. Use a chat program.
5. Use advanced search engine techniques to find specific information on the Internet.
6. Create assessments to evaluate the success of online classes.

The survey allowed instructors to give specific tips for others who teach online.

The tips were compiled and grouped by topics. Some of the most frequently stated tips are listed below.

- Allow plenty of time to create the class website.
- It is very important that all assignments, due dates, and grading policies be posted by the first day of class with detailed instructions for each assignment.
- Classes should be structured with weekly assignments due so that students do not fall behind.
- The instructor should be available and interact with students through email frequently. Prompt feedback to student questions is important for student retention.
- Guidelines should be set, though, as to when an instructor will be available. For example it should be stated if they will not be available on weekends or holidays.
- Interaction between students through threaded discussions is vital to an online course, and there should be weekly graded discussions.
- Instructors should pose meaningful discussion questions that do not have just one right answer. The instructor should monitor the discussion by making sure communication is appropriate, that everyone is participating and no one

is dominating. The instructor should not participate in the discussion except to comment and encourage and then summarize and synthesize at the end.

- It is important to post expected rules of behavior for the class discussions including netiquette rules.
- Post a Frequently Asked Questions section on the class website, and add to it as the semester progresses with other questions that students ask.
- Grading should have less emphasis on tests. Many instructors reported that they use self-assessment tests where students get immediate feedback. Some stated that they allow students to take the tests over and over. The goal is to learn.

This study pointed out that instructors for the most part are inadequately trained before they start teaching online. If institutions want to ensure quality of online classes, which ensures a good reputation for the institution, then it is critical that training be required and implemented. In addition, instructors need the support of the institution in the way of incentives, mentors, and technical support. It has been reported that the feedback from evaluations by students is important, and that it is also important for online instructors to connect with each other through meetings or some type of faculty forum. A handbook to be given to new online instructors with a compiled list of tips from other online instructors, a portfolio of examples, as well as a list of useful resources is recommended.

APPENDIX A
Survey Instrument

Online Faculty Training Survey

A. Background of Participants

A1. How long have you taught online?

- 1 semester 2-4 semesters More than 4 semesters Never (Thank you, you do not need to fill out the rest of the survey)

A2. At least one of my online classes meets completely online with no face-to-face components.

- Yes No

A3. What software do you use?

- Blackboard WebCT FrontPage Other More than one software

A4. If your answer above was "Other" or "More than one software", please list software below

A5. Do you design and develop your own online content?

- Yes No

A6. Optional explanation or comment about your answer for question 5A above.

A7. What is your faculty status?

- Part-time Full-time

A8. Do you teach for more than one institution?

- No Yes (If yes, please answer questions below based on one institution)

A9. In which area do you primarily teach?

A10. Do you primarily teach for a:

- Two-year institution Four-year institution

B. Training Needs

Listed below are areas where instructors may need training.

Please give a response based on your opinion as to the importance of that training.

(Strongly Agree: You feel the training is very important;

Strongly Disagree: You feel the training is not important)

Training in this area is important:

B1.	How to convert a traditional class to an online format.	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B2.	How to create an online syllabus	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B3.	How to meet the needs of an online and/ or adult learner	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B4.	How to become a facilitator / moderator of an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B5.	Use of asynchronous communication (eg. threaded discussions / email)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B6.	How to create online assignments for an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B7.	How to manage assignments (eg. student uploading, grading, etc.)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B8.	How to create assessments for an online class (eg. tests)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B9.	How to prevent plagiarism or cheating in an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
B10.	Technology training for online instructors	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree

C. Your Training

Please give a response based on your opinion as to the quality of your own training in each area listed below.

(Strongly Agree: My training was very good;

Strongly Disagree: My training was very poor or I received no training)

My training was satisfactory in

C1.	How to convert a traditional class to an online format.	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C2.	How to create an online syllabus	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C3.	How to meet the needs of an online and/ or adult learner	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C4.	How to become a facilitator / moderator of an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C5.	Use of asynchronous communication (eg. threaded discussions / email)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C6.	How to create online assignments for an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C7.	How to manage assignments (eg. student uploading, grading, etc.)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C8.	How to create assessments for an online class (eg. tests)	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C9.	How to prevent plagiarism or cheating in an online class	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
C10.	Technology training for online instructors	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree

D. How your Training was Lacking or Helpful

Please comment below on your training in each area.

These responses are optional but would be very helpful to compile for other instructors
(You will receive responses from all the other instructors)

D1. How to convert a traditional class to an online format.

If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

D2. How to create a syllabus

If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

D3. How to meet the needs of an online and/ or adult learner

If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

D4. How to become a facilitator / moderator of an online class

If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

D5. Use of asynchronous communication (eg. threaded discussions / email)


If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

A rectangular text input field with a light gray background and a thin border. It contains no text. On the right side, there are two small square buttons with upward and downward arrows. On the bottom left and right, there are small square buttons with left and right arrows.**D6. How to create online assignments**


If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

A rectangular text input field with a light gray background and a thin border. It contains no text. On the right side, there are two small square buttons with upward and downward arrows. On the bottom left and right, there are small square buttons with left and right arrows.**D7. How to manage assignments (eg. student uploading, grading, etc.)**

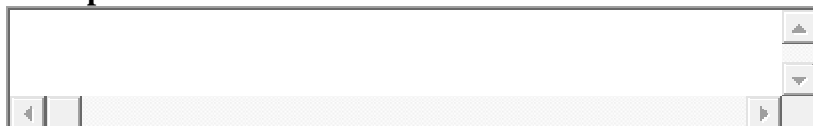
If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

A rectangular text input field with a light gray background and a thin border. It contains no text. On the right side, there are two small square buttons with upward and downward arrows. On the bottom left and right, there are small square buttons with left and right arrows.**D8. How to create assessments for an online class (eg. tests)**

If your training in this area was lacking, how did you learn what you needed to know.

If your training in this area was good - please explain training in this area that was especially helpful

A rectangular text input field with a light gray background and a thin border. It contains no text. On the right side, there are two small square buttons with upward and downward arrows. On the bottom left and right, there are small square buttons with left and right arrows.**D9. How to prevent plagiarism and / or cheating in an online class**

**If your training in this area was lacking, how did you learn what you needed to know.
If your training in this area was good - please explain training in this area that was especially helpful**

D10. Technology training for online instructors

**If your training in this area was lacking, how did you learn what you needed to know.
If your training in this area was good - please explain training in this area that was especially helpful**

E. Ensuring Quality

Please give your opinions and comments below.

E1. My college provides an adequate faculty development and training program for online teaching.

Strongly Agree Strongly Agree Agree Neutral Disagree Strongly Disagree

E2. Comment or explanation about your institution's training program

E3. My college requires instructors to be adequately trained before they teach online (either through the college's own training or training elsewhere)

Strongly Agree Agree Neutral Disagree Strongly Disagree

E4. Comment or explanation about your college's requirement for training

E5. My college provides adequate technical support for its online instructors

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E6. Comment or explanation about your college's technical support

E7. My college provides satisfactory incentives for instructors to teach online

(Eg. Extra pay for developing an online class, a stipend for teaching the first online class, release time, etc.)

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E8. Comment or explanation about your college's incentives

E9. My college sets appropriate class size limits for online classes

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E10. Comment or explanation about your college's class size limits

E11. Providing a mentor to instructors for their first semester teaching online is important

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E12. I was provided a mentor

- Yes
 No

E13. Comment or explanation about your college's use of mentors|

(If you were provided a mentor, please state how long you worked with the mentor)

E14. Student evaluations of online classes are important.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E15. My college requires student evaluations of online classes.

- Yes
 No
 Not sure

E16. Comment or explanation about your college's use of student evaluations

E17. Administrative or faculty evaluations of online classes are important.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E18. My college requires administrative or faculty evaluations for online classes.

- Yes
 No
 Not sure

E19. Comment or Explanation about faculty evaluations

E20. Having experience as an online student before teaching online is important.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E21. I had experience as an online student before teaching online.

- Yes, I took an online class
 Yes, Part or all of my training to teach online was online
 Both - I took an online class and at least part of my training was online
 No, I did not take an online class before teaching online

E22. Comment or explanation about being a student online

E23. Assignments are different in an online class than they are for a face-to-face class.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E24. Comment or explanation about online assignments

E25. The use of threaded discussions for student-to-student communication in an online class is important.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E26. Comment or explanation about use of threaded discussions

E27. Faculty Forums (or threaded discussions) where online instructors can exchange ideas or problems is important.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

E28. My college has a Faculty Forum or threaded discussion for instructors to share ideas and problems.

- Yes
 No
 Not sure

E29. Comment or explanation about Faculty Forums

F. Your Opinions

Your comments below will be very helpful to share with other instructors.

**F1. After teaching online, what skills, knowledge or training did you find you were lacking?
(What did you need to learn on your own?)**

F2. How did you learn what you needed to know (From question F1 above)

F3. Please share any books, literature, training materials or websites that you found helpful that you would recommend to other online instructors.

F4. Please share any practical tips, teaching strategies or suggestions for new online instructors in the areas of communication, time management, assignments, assessments, or any other areas.

F5. Please share any anecdotal stories that you would like such as a problem with a student, a miscommunication, a netiquette problem or other instance (good or bad) that occurred in an online class.

Submit Survey

Screen shots of survey below:

Online Faculty Training Survey

A. Background of Participants

A1. How long have you taught online?
 1 semester 2-4 semesters More than 4 semesters Never (Thank you, you do not need to fill out the rest of the survey)

A2. At least one of my online classes meets completely online with no face-to-face components.
 Yes No

A3. What software do you use?
 Blackboard WebCT FrontPage Other More than one software

A4. If your answer above was "Other" or "More than one software", please list software below

A5. Do you design and develop your own online content?
 Yes No

A6. Optional explanation or comment about your answer for question 5A above.

A7. What is your faculty status?
 Part-time Full-time

A8. Do you teach for more than one institution?
 No Yes (If yes, please answer questions below based on one institution)

A9. In which area do you primarily teach?

A10. Do you primarily teach online for a:
 Two-year institution Four-year institution

B. Training Needs
Listed below are areas where instructors may need training.
Please give a response based on your opinion as to the importance of that training.

(Strongly Agree: You feel the training is very important;
 Strongly Disagree: You feel the training is not important)

Training in this area is important:

B1. How to convert a traditional class to an online format.	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B2. How to create an online syllabus	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B3. How to meet the needs of an online and/ or adult learner	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B4. How to become a facilitator / moderator of an online class	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B5. Use of asynchronous communication (eg. threaded discussions / email)	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B6. How to create online assignments for an online class	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B7. How to manage assignments (eg. student uploading, grading, etc.)	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B8. How to create assessments for an online class (eg. tests)	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B9. How to prevent plagiarism or cheating in an online class	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree
B10. Technology training for online instructors	<input type="radio"/> Strongly Agree	<input type="radio"/> Agree	<input type="radio"/> Neutral	<input type="radio"/> Disagree	<input type="radio"/> Strongly Disagree

jfrese.com - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address http://www.jfrese.com/survey/?C=11125 Go Links Norton Internet Security

C. Your Training

Please give a response based on your opinion as to the quality of your own training in each area listed below.

(Strongly Agree: My training was very good;
Strongly Disagree: My training was very poor or I received no training)

My training was satisfactory in

C1. How to convert a traditional class to an online format. Strongly Agree Agree Neutral Disagree Strongly Disagree

C2. How to create an online syllabus Strongly Agree Agree Neutral Disagree Strongly Disagree

C3. How to meet the needs of an online and/ or adult learner Strongly Agree Agree Neutral Disagree Strongly Disagree

C4. How to become a facilitator / moderator of an online class Strongly Agree Agree Neutral Disagree Strongly Disagree

C5. Use of asynchronous communication (eg. threaded discussions / email) Strongly Agree Agree Neutral Disagree Strongly Disagree

C6. How to create online assignments for an online class Strongly Agree Agree Neutral Disagree Strongly Disagree

C7. How to manage assignments (eg. student uploading, grading, etc.) Strongly Agree Agree Neutral Disagree Strongly Disagree

C8. How to create assessments for an online class (eg. tests) Strongly Agree Agree Neutral Disagree Strongly Disagree

C9. How to prevent plagiarism or cheating in an online class Strongly Agree Agree Neutral Disagree Strongly Disagree

C10. Technology training for online instructors Strongly Agree Agree Neutral Disagree Strongly Disagree

D. How your Training was Lacking or Helpful

Please comment below on your training in each area.

Done

Start Formal Proposal Formal_Frese_Jan_... Survey_Screenshot... jfrese.com - Micr... Microsoft FrontPag... 4:40 PM

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Address http://www.jfrese.com/survey/?C=11125 Go Links Norton Internet Security

D. How your Training was Lacking or Helpful

Please comment below on your training in each area.
These responses are optional but would be very helpful to compile for other instructors

(You will receive responses from all the other instructors)

D1. How to convert a traditional class to an online format.

If your training in this area was lacking, how did you learn what you needed to know.
If your training in this area was good - please explain training in this area that was especially helpful

D2. How to create a syllabus

If your training in this area was lacking, how did you learn what you needed to know.
If your training in this area was good - please explain training in this area that was especially helpful

D3. How to meet the needs of an online and/ or adult learner

If your training in this area was lacking, how did you learn what you needed to know.
If your training in this area was good - please explain training in this area that was especially helpful

Done

Start Formal Proposal Formal_Frese_Jan_... Survey_Screenshot... jfrese.com - Micr... Microsoft FrontPag... 4:40 PM

D4. How to become a facilitator / moderator of an online class

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D5. Use of asynchronous communication (eg. threaded discussions / email)

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D6. How to create online assignments

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D7. How to manage assignments (eg. student uploading, grading, etc.)

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D8. How to create assessments for an online class (eg. tests)

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D9. How to prevent plagiarism and / or cheating in an online class

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

D10. Technology training for online instructors

If your training in this area was lacking, how did you learn what you needed to know.
 If your training in this area was good - please explain training in this area that was especially helpful

E. Ensuring Quality

Please give your opinions and comments below.

E1. My college provides an adequate faculty development and training program for online teaching.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E. Ensuring Quality

Please give your opinions and comments below.

E1. My college provides an adequate faculty development and training program for online teaching.
 Strongly Agree Strongly Agree Agree Neutral Disagree Strongly Disagree

E2. Comment or explanation about your institution's training program

E3. My college requires instructors to be adequately trained before they teach online (either through the college's own training or training elsewhere)
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E4. Comment or explanation about your college's requirement for training

E5. My college provides adequate technical support for its online instructors
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E6. Comment or explanation about your college's technical support

E7. My college provides satisfactory incentives for instructors to teach online (Eg. Extra pay for developing an online class, a stipend for teaching the first online class, release time, etc.)
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E8. Comment or explanation about your college's incentives

E9. My college sets appropriate class size limits for online classes
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E10. Comment or explanation about your college's class size limits

E11. Providing a mentor to instructors for their first semester teaching online is important
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E12. I was provided a mentor
 Yes No

E13. Comment or explanation about your college's use of mentors (If you were provided a mentor, please state how long you worked with the mentor)

E14. Student evaluations of online classes are important.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E15. My college requires student evaluations of online classes.
 Yes No Not sure

E16. Comment or explanation about your college's use of student evaluations

jfrese.com - Microsoft Internet Explorer

Address <http://www.jfrese.com/survey/?C=11125>

E17. Administrative or faculty evaluations of online classes are important.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E18. My college requires administrative or faculty evaluations for online classes.
 Yes No Not sure

E19. Comment or Explanation about faculty evaluations

E20. Having experience as an online student before teaching online is important.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E21. I had experience as an online student before teaching online.
 Yes, I took an online class Yes, Part or all of my training to teach online was online
 Both - I took an online class and at least part of my training was online No, I did not take an online class before teaching online

E22. Comment or explanation about being a student online

E23. Assignments are different in an online class than they are for a face-to-face class.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E24. Comment or explanation about online assignments

E25. The use of threaded discussions for student-to-student communication in an online class is important.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E26. Comment or explanation about use of threaded discussions

E27. Faculty Forums (or threaded discussions) where online instructors can exchange ideas or problems is important.
 Strongly Agree Agree Neutral Disagree Strongly Disagree

E28. My college has a Faculty Forum or threaded discussion for instructors to share ideas and problems.
 Yes No Not sure

E29. Comment or explanation about Faculty Forums

F. Your Opinions

Your comments below will be very helpful to share with other instructors.

F1. After teaching online, what skills, knowledge or training did you find you were lacking?
 (What did you need to learn on your own?)

F2. How did you learn what you needed to know (From question F1 above)

jfrese.com - Microsoft Internet Explorer

Address <http://www.jfrese.com/survey/survey.html>

Done

Start

Formal Proposal

Formal_Frese_Jan_...

Survey_Screenshot...

jfrese.com - Micr...

Microsoft FrontPag...

4:42 PM

Done

Start

Formal_Frese_Jan_7_06...

Changes to Formal.doc...

1_C++

jfrese.com - Microsof...

5:36 PM

The screenshot shows a Microsoft Internet Explorer browser window with the address bar displaying <http://www.jfrese.com/survey/survey.html>. The page content is as follows:

F2. How did you learn what you needed to know (From question F1 above)

F3. Please share any books, literature, training materials or websites that you found helpful that you would recommend to other online instructors.

F4. Please share any practical tips, teaching strategies or suggestions for new online instructors in the areas of communication, time management, assignments, assessments, or any other areas.

F5. Please share any anecdotal stories that you would like such as a problem with a student, a miscommunication, a netiquette problem or other instance (good or bad) that occurred in an online class.

The browser's taskbar at the bottom shows several open applications: 'Formal_Frese_Jan_7_06...', 'changes to Formal.doc - ...', '1_C++', and the browser window itself. The system clock indicates the time is 5:36 PM.

APPENDIX B

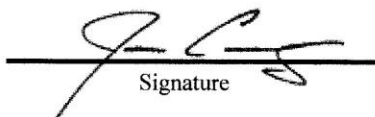
Institutional Review Board Approval

NOVA SOUTHEASTERN UNIVERSITY
Office of Grants and Contracts
Institutional Review Board



MEMORANDUM

To: Joan Frese
From: James Cannady, Ph.D.
Institutional Review Board


Signature

Date: November 15, 2005

Re: *A Faculty Development Handbook for Quality Online Instruction*

IRB Approval Number: cannady11150504

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

- 1) **CONSENT:** If recruitment procedures include consent forms these must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.
- 2) **ADVERSE REACTIONS:** The principal investigator is required to notify the IRB chair and me (954-262-5369 and 954-262-2085 respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.
- 3) **AMENDMENTS:** Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: Protocol File
Office of Grants and Contracts (if study is funded)

APPENDIX C

Email to Potential Participants

My name is Joan Frese and I am a full-time instructor for Fresno City College. I am conducting a study of the training needs of online faculty for my doctoral dissertation.

I plan to find out from experienced online instructors what training they feel is important, what was lacking in their own training, and how they learned what they needed to know. This will be done through an electronic survey. Information will be strictly confidential, and no names will be used.

Those who decide to participate in this study will receive the complete results of the study, including the contents of a Faculty Development Handbook for Quality Online Instruction which will include practical resources, advice and tips from experienced online instructors. I will compile the anonymous answers from all participants, and you will receive that compilation. Approximately 2000 online instructors will be contacted.

If you are interested in participating, please click on the link below which will give more detailed information and a consent form to participate. You will then be given a link to the survey, which should take anywhere between 10 and 30 minutes to complete.

Thank you in advance!

<http://www.jfrese/consentform/dummy.html>

APPENDIX D



Adult Informed Consent

Adult Informed Consent form for Participation in
A Faculty Development Handbook for Quality Online Instruction Study

Funding Source: None.
IRB approval # cannady 11150504

Principal investigator(s)
Joan Frese (Student)
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FAX: 559 348-1003
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Co-investigator(s)
Dr. Gertrude Abramson (Advisor)
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Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369

Description of the Study:

The purpose of this study is to research the training needs of online instructors. There are many training programs in place, but these training programs may not completely meet the needs of new online instructors.

The survey will ask questions about the importance of different areas of training for online faculty. It will also ask experienced online instructors what was lacking in their own training and how they had to learn what they needed to know.

Subjects were selected from a list of online instructors on the California Virtual Campus website. It is anticipated that the survey will take somewhere between 10 minutes and 30 minutes to complete.

Risks /Benefits to the Participant:

Participants in this study will be emailed the results of the study, which will include the contents of a faculty development handbook for quality online instruction. It will compile the necessary components of a quality training program based on a review of the literature as well as the results of the survey. In addition, as part of the survey, online instructors will list resources and other practical tips and teaching strategies that were

helpful to them. Participants will receive a compilation of the anonymous responses of all the participating instructors.

If you have any concerns about the risks or benefits of participating in this study, you can contact Joan Frese, Dr. Gertrude Abramson, or the IRB office at the numbers indicated above.

Costs and Payments to the Participant:

There are no costs to you or payments made for participating in this study. As stated above, however, participants will receive an emailed copy of the results of the study.

Confidentiality and Privacy:

All information obtained in this study is strictly confidential unless disclosure is required by law. The participants will be anonymous, but each potential respondent will be identified by a code in order to identify non-respondents for follow-up. In addition, during data collection all data will be kept confidential and will not be shared with other participants or individuals outside of the project.

The information will be kept on a computer that is password protected, and will be accessible only by the researcher. Participants will be entered into the database of information only if they choose to respond to the questionnaire. All reporting will be in a summarized form, and no individual names will be used. After all the data have been collected, the researcher will only refer to the participants by the numerical code and personal identifying data will be deleted. The IRB and regulatory agencies may review research records.

Participant's Right to Withdraw from the Study:

You have the right to refuse to participate or to withdraw at any time. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless prohibited by state or federal law.

Other Considerations:

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you by the investigators.

Voluntary Consent by Participant:

I have read the preceding consent form, or it has been read to me, and I fully understand the contents of this document and voluntarily consent to participate. All of my questions concerning the research have been answered. I hereby agree to participate in this research study. If I have any questions in the future about this study they will be answered by Joan Frese. A copy of this form may be printed for future reference. This consent ends at the conclusion of this study.

Clicking below indicates that I have read and understood the description of the study and I agree to participate.

I Agree

APPENDIX E

Follow-up Email to Potential Participants

Subject: Online Faculty Training Follow-up

I am a full-time instructor for Fresno City College. You may remember that I am conducting a study of the training needs of online faculty for my doctoral dissertation.

I am extending the study for one more week.

My records indicate that you have not yet taken the survey. Just a reminder, if you fill out the survey you will receive the results of the study including the contents of a faculty development handbook for quality online instruction.

[Click Here to Take Survey](#)

For those having trouble taking the survey or those who had the survey forwarded to you, here is the link you should use:

<http://www.jfrese.com/survey2>

Thank you for your help.

Joan Frese

APPENDIX F

Results of Survey Section A

Question A1: How long have you taught online?

How long have you taught online?		
More than 4 Semesters	230	86%
2-4 Semesters	32	12%
1 Semester	6	2%
Total responses to this question	268	100%

Question A2: At least one of my online classes meets completely online with no face-to-face components.

Classes completely online?		
Yes	204	76%
No	66	24%
Total responses to this question	270	100%

Question A3: What software do you use?

What software?		
Blackboard	82	31%
WebCT	75	28%
Other	54	20%
More than One	47	18%
FrontPage	10	4%
Total responses to this question	268	100%

Question A7: What is your faculty status?

Full-time or part-time?		
Full-time	181	75%
Part-time	61	25%
Total responses to this question	242	100%

Question A8: Do you teach for more than one institution?

More than one institution?		
No	184	82%
Yes	40	18%
Total responses to this question	224	100%

Question A9: In which area do you primarily teach?

Teaching area		
Business	43	17%
Social Science	40	16%
Other	38	15%
Applied Technology	27	11%
Computer Science	25	10%
Language Arts	23	9%
Health Sciences	14	6%
Math	7	3%
Science	7	3%
Child Development	6	2%
Art	5	2%
Teacher Education	5	2%
Music	3	1%
Speech	3	1%
Theatre Arts	3	1%
Engineering	1	0%
Total responses to this question	250	100%

Question A10: Do you primarily teach online for a: (two-year institution, four-year institution)

Type of institution		
Two-Year	219	94%
Four-Year	14	6%
Total responses to this question	233	100%

APPENDIX G

Results of Survey Sections B & C

Questions B1-B10: Listed below are areas where instructors may need training. Please give a response based on your opinion as to the importance of that training.

This area of training is important										
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree										
		5	4	3	2	1				
		SA	A	N	DA	SDA	Total	Mean	Mode	Std. Dev.
B1	How to convert a traditional class to an online format	168	84	13	4	3	272	4.5	5	0.8
		62%	31%	5%	1%	1%	100%			
B2	How to create an online syllabus	79	122	53	13	5	272	3.9	4	0.9
		29%	45%	19%	5%	2%	100%			
B3	How to meet the needs of an online and / or adult learner	167	89	12	1	3	272	4.5	5	0.7
		61%	33%	4%	0%	1%	100%			
B4	How to become a facilitator / moderator of an online class	149	101	20	1	1	272	4.5	5	0.7
		55%	37%	7%	0%	0%	100%			
B5	Use of asynchronous communication	128	108	24	8	3	271	4.3	5	0.8
		47%	40%	9%	3%	1%	100%			
B6	How to create online assignments for an online class	135	112	17	5	2	271	4.4	5	0.7
		50%	41%	6%	2%	1%	100%			
B7	How to manage assignments (uploading, grading)	142	107	20	1	2	272	4.4	5	0.7
		52%	39%	7%	0%	1%	100%			
B8	How to create assessments for an online class (tests)	149	104	15	2	2	272	4.5	5	0.7
		55%	38%	6%	1%	1%	100%			
B9	How to prevent plagiarism or cheating in an online class	131	102	33	4	2	272	4.3	5	0.8
		48%	38%	12%	1%	1%	100%			
B10	Technology training for online instructors	182	73	15	0	2	272	4.6	5	0.7
		67%	27%	6%	0%	1%	100%			

Questions C1-C10: Please give a response based on your opinion as to the quality of your own training in each area listed below.

My training was good in:										
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree										
		5	4	3	2	1				
		SA	A	N	DA	SDA	Total	Mean	Mode	Std. Dev.
C1	How to convert a traditional class to an online format	67	73	63	37	32	272	3.4	4	1.3
		25%	27%	23%	14%	12%	100%			
C2	How to create an online syllabus	62	83	68	27	32	272	3.4	4	1.3
		23%	31%	25%	10%	12%	100%			
C3	How to meet the needs of an online and / or adult learner	63	73	57	45	34	272	3.3	4	1.3
		23%	27%	21%	17%	13%	100%			
C4	How to become a facilitator / moderator of an online class	60	74	64	37	37	272	3.3	4	1.3
		22%	27%	24%	14%	14%	100%			
C5	Use of asynchronous communication	67	87	60	25	33	272	3.5	4	1.3
		25%	32%	22%	9%	12%	100%			
C6	How to create online assignments for an online class	60	84	59	39	30	272	3.4	4	1.3
		22%	31%	22%	14%	11%	100%			
C7	How to manage assignments (uploading, grading)	55	82	59	39	37	272	3.3	4	1.3
		20%	30%	22%	14%	14%	100%			
C8	How to create assessments for an online class (tests)	54	86	61	42	30	273	3.3	4	1.3
		20%	32%	22%	15%	11%	100%			
C9	How to prevent plagiarism or cheating in an online class	31	63	82	50	45	271	2.9	3	1.2
		11%	23%	30%	18%	17%	100%			
C10	Technology training for online instructors	74	83	57	35	21	270	3.6	4	1.2
		27%	31%	21%	13%	8%	100%			

APPENDIX H

Results of Survey Section E

Question E1: My college provides an adequate faculty development training program for online teaching.

My college provides adequate training.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
66	87	36	44	34	267	3.4	4	1.4
25%	33%	13%	16%	13%	100%			

Question E3: My college requires instructors to be adequately trained before they teach online (either through the college's own training or training elsewhere.)

My college requires adequate training.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
36	73	56	60	42	267	3	4	1.3
13%	27%	21%	22%	16%	100%			

Question E5: My college provides adequate technical support for its online instructors.

My college provides adequate technical support.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
68	91	48	40	16	263	3.6	4	1.2
26%	35%	18%	15%	6%	100%			

Question E7: My college provides satisfactory incentives to teach online
(Eg. Extra pay for developing an online class, a stipend for teaching the first online class, release time, etc.)

My college provides satisfactory incentives.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
16	32	47	53	116	264	2.2	1	1.3
6%	12%	18%	20%	44%	100%			

Question E9: My college sets appropriate class size limits for online classes.

My college sets appropriate class size limits.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
34	77	57	59	37	264	3	4	1.3
13%	29%	22%	22%	14%	100%			

Question E11: Providing a mentor to instructors for their first semester teaching online is important.

Providing a mentor is important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
124	73	35	19	15	266	4	5	1.2
47%	27%	13%	7%	6%	100%			

Question E12: I was provided a mentor.

I was provided a mentor.		
Yes	No	Total Responses
40	226	266
15%	85%	100%

Question E14: Student evaluations of online classes are important.

Student evaluations of online classes are important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
139	102	20	4	0	265	4.4	5	0.7
52%	38%	8%	2%	0%	100%			

Question E15: My college requires student evaluations of online classes

My college requires student evaluations.			
Yes	No	Not Sure	Total Responses
113	115	39	267
42%	43%	15%	100%

Question E17: Administrative or faculty evaluations of online classes are important.

Administrative / Faculty evaluations are important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
92	108	46	10	5	261	4	4	0.9
35%	41%	18%	4%	2%	100%			

Question E18: My college requires administrative or faculty evaluations for online classes.

My college requires administrative evaluations.			
Yes	No	Not Sure	Total Responses
81	126	58	265
31%	48%	22%	100%

Question E20: Having experience as an online student before teaching online is important.

Experience as an online student before teaching online is important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
108	75	50	26	5	264	4	5	1.1
41%	28%	19%	10%	2%	100%			

Question E21: I had experience as an online student before teaching online.

I had experience as an online student before teaching online.				
Yes, I took a class	Yes, as part of my training	Both, took a class & as part of training	No online experience	Total Responses
73	35	56	100	264
28%	13%	21%	38%	100%

Question E23: Assignments are different in an online class than they are for a face-to-face class.

Assignments are different in an online class.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
50	106	54	43	10	263	3.5	4	1.1
19%	40%	21%	16%	4%	100%			

Question E25: The use of threaded discussions for student-to-student communication in an online class is important.

The use of threaded discussions for communication is important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
145	77	32	10	0	264	4.4	5	0.8
55%	29%	12%	4%	0%	100%			

Question E27: Faculty Forums (or threaded discussions) where online instructors can exchange ideas or problems is important.

Faculty Forums are important.								
SA=Strongly Agree, A=Agree, N=Neutral, DA=Disagree, SDA=Strongly Disagree								
5	4	3	2	1				
SA	A	N	DA	SDA	Total Responses	Average	Mode	Std. Dev.
59	103	89	7	3	261	3.8	4	0.9
23%	39%	34%	3%	1%	100%			

Question E28: My college has a Faculty Forum or threaded discussion for instructors to share ideas and problems.

My college has a Faculty Forum.			
Yes	No	Not Sure	Total Responses
83	134	46	263
32%	51%	17%	100%

APPENDIX I

Results of Survey Section F

Question F1: After teaching online, what skills, knowledge or training did you find you were lacking? (What did you need to learn on your own?)

What skills did you find you were lacking?	Number of Specific Responses in this Area
Technology	53
Content / Assignments	32
Student Motivation	22
Communication Skills	20
Time Management	20
Assessments	16
Pedagogy	4
Academic Honesty	4

Question F2: How did you learn what you needed to know (From question F1)

How did you learn what you needed to know?	Number of Responses in this Area
Trial and Error	83
Asking Others for Help	52
Took Classes	43
Self-Taught	40
Student Feedback	7

APPENDIX J

Resources Provided by Participants

Website:	Information about Website
http://www.merlot.org/Home.po	Multimedia Educational Resource for Learning and Online Teaching
http://4faculty.org/	4faculty.org is an online professional development network of resources and learning modules
http://ve.csusb.edu/	Career and Technical Teacher Education
http://www.ccone.org/	@ONE provides educational technology resources to California Community College faculty
http://www.foothillglobalaccess.org/cyber-cti/	Cyber Teachers Institute
http://www.studenthub.org/new/index.html	There is a self-assessment area where students can find out their learning styles & see if ready for online education
http://frc.sbccc.edu/	Faculty Resource Center for Santa Barbara City College
http://4sbccfaculty.org/hub.php	Santa Barbara City College Faculty Teaching and Learning Seminar
http://webquest.sdsu.edu/	The WebQuest Page Educational Technology Department of San Diego State University
http://owl.english.purdue.edu/handouts/index.html	Handouts and Materials for Students and Teachers by Purdue University
http://www.lib.odu.edu/distance/dersrcs.htm	Resources for Distance Learning Library Services
http://clp.cqu.edu.au/index.htm	Online Collaborative Learning
http://www.ion.uillinois.edu/resources/tutorials/	Online Education Resources through Illinois Online Network
http://www2.warwick.ac.uk/services/cap/resources/eguides/	Warwick's Centre for Academic Practice
http://www.umuc.edu/virtualteaching/module1/strategies.html	Virtual Resource Site for Teaching with Technology
http://www.mcli.dist.maricopa.edu/	Maricopa Center for Learning and Instruction
http://hotpot.uvic.ca/	Hot Potatoes Tool for creating quizzes

Book Name	Author(s)
Web-Teaching. A Guide to Designing Interactive Teaching for the World Wide Web. Kluwer Academic / Plenum Publishers, 2001	Brooks, D., Nolan, D. E., & Gallagher, S.
Delivering Instruction to Adult Learners Wall & Emerson, 2001	Cantor, J.
Tele-Learning in a Digital World Intl Thomson Computer Pr, 1996	Collis, Betty
Facilitating Online Learning Atwood Pub 01 October, 2000	Collison, G, Elbaum, B; Haavind, S, & Tinker, R
147 Practical Tips for Teaching Online Groups Atwood Publications, 2000	Hanna, D.S., Glowacki-Dudka, M, & Conceicao-Runlee, S
Designing Web-Based Training Wiley, 2000	Horton, W.
Teaching Online: A Practical Guide, 2nd ed. Houghton Mifflin, 2003	Ko, S. & Rossen, S.
You CAN Teach Online! McGraw-Hill, 2001	Moore, G. S., Winograd, K, & Lange, D,
The Virtual Student A Profile and Guide to Working With Online Learners Wiley, 2003	Palloff, R. & Pratt, K.
Creating the Virtual Classroom Wiley, 1997	Porter, L.
E-Moderating: The Key to Teaching and Learning Online. RoutledgeFalmer / Taylor & Francis, 2003	Salmon, G.
Designing and Teaching an On-line Course Prentice Hall, 1999	Schweizer, H.
The Book of Learning and Forgetting Teachers College Press, 1998	Smith, F.
Learner-Centered Teaching - Five Key Changes to Practice Jossey-Bass Publishing, 2002	Weimer, M.
Delivering Learning on the Net Stylus Publishing, Inc., 2002	Weller, M.
Online Teaching Guide, The Allyn & Bacon, 1999	White, K. W. & Weight, B. H.
The Art of Possibility Client Distribution Services, 2000	Zander, R. S. & Zander, B.
Software	Information
Camtasia TechSmith Corp.	For creating tutorials. Captures keystrokes and audio.
ExamPro Course Technology	Textbooks from this publisher with tools for online teaching.

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