AC 2007-1084: PREPARATION FOR ONLINE TEACHING AND ACTUAL PRACTICES FOR TECHNOLOGY-ORIENTED COURSES

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Preparation for Online Teaching and Actual Practices for Technology-Oriented Courses

Abstract

The growth of distance education and the corresponding demand for online instructors is a trend that has continued over the past ten to fifteen years. Quality online instruction should be preceded by high quality preparation for online teaching including exposure to best practices for online teaching. Despite the strong relationship between good teaching and good preparation, there is a perception that the type of preparation and the amount of preparation provided for instructors prior to teaching online courses is highly variable from one institution to another institution. Given this context, instructor preparation is the main focus of this paper and best practices for online instruction is a secondary focus. To explore these topics an existing survey instrument was selected and minor revisions were made in order to collect data regarding the type of preparation, the amount of preparation and the source of that preparation. Another aspect of the survey is the exploration of exposure to best practices that instructors may have gained through their preparation and training. The natural progression also leads to questions regarding actual practices in online courses and whether best practices are being employed by online instructors. The survey instrument was administered via email and online to a sample of faculty from a wide range of technology-oriented programs from universities across the United States. The quantitative data collected will be analyzed using measures of frequency and variability through SPSS in order to compare the universities from different state systems. Findings are intended to promote change in order to support student success in the online learning atmosphere.

Introduction

Distance education has been growing as a form of undergraduate education over the last decade. According to the National Center for Education Statistics, for the 2000-2001 academic year there were 2,876,000 students enrolled in distance education college level courses.[29] Eighty-two percent were undergraduate level courses. This represents a 111% growth of total student enrollment from the 1997-1998 (1,363,670) academic year. [28] Additionally, 78% of 4-year, public degree-granting higher education institutions were offering distance education courses in 1997-1998[30]. This percentage increased considerably to 86% in the 2004-2005 academic year.[31] Allen and Seaman states over the past few years, enrollment in online courses have grown substantially faster than the overall higher education student body growth.[1] According to Allen and Seaman, 3.2 million students took at least one online course in the fall of 2005. In the fall of 2004, this number was 2.3 million and authors state that growth will not level off but continue to increase.

As the offering of distance education programs has grown dramatically over the past decade some major players have emerged. Among the leaders in distance education are institutions such as the University of Phoenix, Walden University, Colorado Technical University and a few others. As mentioned above, traditional brick and mortar universities have also ventured into distance education in an effort to stave off competition or in an effort to expand their own market share.

With the continued growth and popularity of online courses, the number of faculty required to teach these courses continues to expand as well. Patrick and Yick state that "[t]his rapid growth has spurred administrators in universities and colleges to implement online courses. Faculty members feel pressured or perhaps are being pressured to learn new technological mechanisms to deliver curricula and to put their courses online".[21] Ehrmann and Hewett clearly indicate why preparation for online teaching is important: "Instructors cannot directly transplant their understandings, strategies, and skills from face-to-face to online teaching environments".[11] Busch and Johnson add to this sentiment by offering that experienced faculty members find it difficult to change their thinking processes to be successful in an online course unless they are properly trained.[5] Faculty members' success in the online classroom is contingent on receiving support from the university[16] and to facilitate instructor success training programs must be available to prepare them for teaching online.[11]

Faculty at the major distance education players (i.e. University of Phoenix, Walden University, Colorado Technical University, etc.) enter their jobs with a clear understanding that they will be teaching online. They are recruited for the skill sets they possess and the successes which they have experienced in online teaching. Even with experience, new faculty at the leading distance education institutions are required to complete online training prior to teaching online. By contrast, faculty members at traditional universities are likely to enter the profession with little or no online teaching experience. They may also seek employment at a traditional university with an expectation that the primary teaching will be face-to-face in a traditional classroom. Still another group of faculty at traditional universities will have a number of years of experience in the traditional classroom and have only recently felt the pressure or the need to make the transition to online teaching.

Among all of these universities the opportunities for training workshops to provide preparation for instructors varies widely. " Online faculty training that occurs at UOP [University of Phoenix] is rigorous in discipline, comprehensive in approach and focused on development of competent and aware online faculty".[20] Walden University provides mandatory preparation for instructors before they are allowed to teach their first online course. These universities approach the situation differently because distance education is their main focus and a significant portion of their faculty are part time employees (or adjunct).

Traditional universities have historically provided very limited training and preparation for new faculty entering the traditional classroom. The new faculty member either succeed or fail based on their own abilities to survive what is essentially a trial by fire. To a great extent, based on anecdotal evidence, the same is true for faculty who agree to teach online for the first time within a traditional university. A few studies support this claim. "Professors are often given little or no

training before teaching their first online course".[35] According to a study by Bower, 40% of institutions did not provide training or preparation for their online instructors.[2]

The type of training is not limited to online course design. Training is also needed "in all aspects in which faculty interact with the online program".[24] The basics of the delivery technology may be covered in training or it may be left to the instructor to learn the technology on their own. Beyond the first-time online instructor there is also a need for faculty to maintain and upgrade their knowledge about online teaching. In particular, best practices for online teaching continue to emerge and faculty must learn the latest developments. Continued innovation in distance education technology is another motivation for faculty to stay informed about these new advances.

Literature Review

In this section the literature is reviewed in the two main topic areas of interest, preparation for online teaching and best practices for online teaching. These topic areas are also the primary and secondary focus in our survey questions.

Preparation

The main premise for preparation is that good training/preparation is needed to provide instructors with the foundation to allow them to succeed in their online teaching. Several studies have made similar assertions or conclusions regarding the need for training and development for the online format if high quality online instruction is to be achieved.[10, 17, 19, 32]

The literature on training and preparation for online teaching is quite limited. Based on an extensive literature review, Wolf supports that claim.[33] Wolf went on to investigate training programs in educational institutions and corporations. Her study concluded that successful online training programs are led by instructors who:

- have significant computer competencies prior to beginning their own training for teaching online
- have received training in the "course delivery system"
- have continuing "institutional support" and
- are "motivated to work in this environment".[33]

As another example of preparation that faculty need, Schoenfield-Tacher and Persichitte list the following areas where faculty must gain competencies:

- "become proficient in the use of the chosen delivery technology,
- design lessons that are more student centered,
- adapt to teaching in the absence of nonverbal feedback from students,
- and develop methods of communicating their content without lecturing".[22]

Note that "course delivery system" and "chosen delivery technology" are common to the two lists but are used to denote the same idea. The "delivery technology" represents the very fundamental skills and the ones which are the main focus of training that is made available. The remaining items on the two lists cover a broad spectrum from "institutional support" all the way

down to "student centered" lesson design. The former is a resource and administrative issue while the latter falls into the realm of "best practices."

As an example of required training, the University of Phoenix (UOP) offers an online training program to prepare online course facilitators.[20] For this program there are also some basic preparations before a candidate is accepted into the program. The qualifying preparation includes "a proficiency test in using Outlook Express".[20] The proficiency test is taken following a tutorial that instructs the candidate on "how to configure both email and newsgroup accounts" and how to "format email messages". These again represent a very fundamental level of skills which are necessary for successful online instruction. These skills might also be viewed as corresponding with some of the computer competencies that were on Wolf's list.[33]

The preparation at UOP continues in the form of indoctrinating faculty to the idea of working with an online institution of higher education.[20] After four weeks of online training, the candidate advances to the next stage, "the mentorship". An experienced UOP faculty member provides this phase of the training by working closely with the candidate and reviewing the candidate's online materials on a regular basis. "[T]he need for practicing the skills required to facilitate or to teach an online class, to manipulate the online environment, and to master the required skills of communication and interaction cannot be underestimated".[20]

Yang and Cornelious take a somewhat different perspective, "instructors need to adjust their attitudes to teach online, understand what qualifications are needed, and know what they can do [to] ensure the quality of online instruction".[34] The authors suggest that these measures alone will not assure quality nor will "training in the use of technology". The authors suggest a broader approach which is summarized in the following statements:

- "qualification of the instructors should be a first consideration.
- … those who teach online courses should understand what their roles are and adjust their attitudes for this role change.
- … it is important for instructors to master design and delivery strategies, techniques, and methods for teaching online courses.
- … the institution should provide technical and financial support for faculty.
- …[and] school administrators should also realize what their role and responsibilities are in ensuring quality online instruction".[34]

These observations share some common ground with the earlier ones listed by Wolf and Schoenfield-Tacher and Persichitte[33, 22]. The observations about "roles" and "financial support" are new ones that do not appear in the earlier lists. So the "roles" have more to do with the instructor's mindset or attitude. We certainly concur that faculty who are motivated to teach online and are enthusiastic about working in the online environment will be more likely to succeed.

For our study we took a more focused approach and looked only at the preparation for online faculty (i.e. administration is not included). Our survey determined if training opportunities were available and explored whether faculty members have taken advantage of training opportunities when they are made available to them. We also investigated whether the training was obtained at their current university or at a previous institution. We then explored the actual practices being

used in online courses. First, we have provided background from the literature on the topic of best practices in teaching and more specifically at best practices for online teaching.

Best Practices

In 1987, Chickering and Gamson utilized published research and personal knowledge to outline key components and instructional strategies that would lead to quality undergraduate education in face-to-face classrooms.[7] Seven principles for improving undergraduate teaching were derived to represent evaluation criteria and to provide a framework for practical application in the university classroom.[8] Since that time, the Seven Principles have evolved into standards for undergraduate education and have been used by instructors in face-to-face classrooms to enhance the quality of instruction.[9, 26] These principles have also set the stage for a large number of research studies[3, 4, 13, 25] in support of both face-to-face and online course quality.

Chickering and Gamson's Seven Principles assert that good practice in undergraduate education (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning.[7] These principles have set standards for undergraduate instruction and have been used to enhance the quality of instruction in traditional face-to-face classrooms.[26] With an increase in the offerings of online courses[1, 27, 28, 29, 30, 31], and the principles being designed to be accessible, understandable, practical and widely applicable, you can apply the same principles to an online environment. The Chickering and Ehrmann article is an expansion of the 1987 principles[6] and does bring the best practices into a "technology rich environment".[18] With the current technology and instructional programs, there is a wide array of opportunities to adhere to the seven principles in an online environment.

From this foundation, this study seeks to investigate "preparation" and "best practices" among faculty of technology-oriented coursework in U.S. universities. In the next section we describe the Research Design. Following that we will describe the survey instrument employed in this study.

Research Design

A survey instrument was utilized to obtain faculty's experiences with training/preparation and to inquire about their actual practices in online courses. The survey was adapted from the instrument used by Kosak, Manning, Dobson, Cotnam, Colaric and McFadden.[15] In their study, the authors examined the training and support available to online instructors in the University of North Carolina (UNC) statewide system. Results from that study indicated that training was sufficient and that a large portion of the training was offered on campus.

Minor modifications to the instrument were made to include questions regarding training for online courses received at an institution immediately prior to the instructor's current employer where applicable. Another modification was aimed at discerning the training received about "best practices" and then whether those best practices are being used in the classroom. The

survey was reviewed by a panel of distance education experts to validate the instrument after our modifications were made.

For this study the sample was also modified to include faculty from states other than North Carolina and to focus more specifically on faculty from technology-oriented disciplines. The initial group of participants were identified from attendees at a Distance Education session at the National Association of Industrial Technology (NAIT) Conference in Cleveland, Ohio in November, 2006. Additional subjects for participation were identified by reviewing the websites for the technology-oriented programs for universities and community colleges who were represented at the NAIT Conference. Another group of subjects were identified from websites for the universities and community colleges within the UNC System. These were again limited to technology-oriented programs.

The survey was developed in the survey software, Perseus®. Perseus® facilitates writing questions and answers in various standard formats such as limiting to a single response or allowing multiple responses. The software also accommodates the development (or importing) of an email list for survey distribution. The notification for the survey was sent to subjects via email. To respond the recipient accesses a website where the survey is hosted, completes the survey and then submits the survey upon completion.

Survey Response Rate

The entire survey was developed and the results were managed using the software Perseus™. An email notification about the survey was developed within Perseus™ and a weblink to connect to our server in order to complete the survey was included in the email. The notification was sent to a total of 120 potential respondents. These individuals were identified as faculty who teach online at two-year colleges and four-year universities across the U.S. and among that group is a large contingent from the University of North Carolina (UNC) system and North Carolina Community College system (NCCCS). The subgroups include 30 faculty members from various U.S. 2-year colleges and 4-year universities; 30 faculty members from 4-year universities within the UNC system; and 60 faculty members from 2-year colleges within the North Carolina Community College system.

The response rate was 37.6% for all respondent groups combined. This is based on 44 usable responses returned from 117 valid email notification recipients. The balance (3 out of 120) was returned as undeliverable due to an invalid email address. The subgroup response rates were 39.3% (11 out of 28) for the United States 2-year and four-year schools; 37.9% (11 out of 29) for the 4-year schools within the UNC system; and 36.7% (22 out of 60) for the 2-year schools within the North Carolina Community College system.

Results

Research questions requested information concerning attendance with the last year of off-campus and on-campus training concerning online teaching, and level of agreement with best practices in an online instruction for both training and usage. Information presented in Tables 1 through 4 highlights descriptive statistics (frequency) by public 2-year educational institutions in North Carolina, public 4-year educational institutions in North Carolina and both 2 and 4-year public

educational institutions outside of North Carolina. There were 22 responses from the public 2-year educational institutions in North Carolina, 11 responses from the public 4-year educational institutions in North Carolina, and 11 responses from the 2 and 4-year public educational institutions outside of North Carolina.

Training Opportunities Attended in the Last Year

There were two research questions that asked if the participant attended either an "off-campus" or "on-campus" training within the past year. The respondent could answer multiple times and answers included: I did not attend, conferences, group sessions, training, printed materials, mentorship, listservs, regular discussion sessions among peers, observations of other distance courses and web-based tutorials. Again, respondents could choose all that applied.

The responses from public 2-year educational institutions in North Carolina were 40.7% that did not attend any "off-campus" training. The responses from both the public 4-year educational institutions in North Carolina, and 2 and 4-year public educational institutions outside of North Carolina were 41.7% and 35.7%, respectively, that did not attend "off-campus" training. Attending "off-campus" conferences was the next highest response for all three contingencies, 25.9% (public 2-year educational institutions in North Carolina), 41.7 % (public 4-year educational institutions in North Carolina), and 21.4% (2 and 4-year public educational institutions outside of North Carolina).

Table 1

Attendance of Off-Campus Training for Public Educational Institutions Inside and Outside of

North Carolina

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
I did NOT attend any OFF-CAMPUS training concerning online teaching this past year.	40.7%	11	41.7%	5	35.7%	5
Conferences	25.9%	7	41.7%	5	21.4%	3
Group sessions	11.1%	3	8.3%	1	14.3%	2
Training	14.8%	4	16.7%	2	7.1%	1
Printed materials	18.5%	5	25.0%	3	7.1%	1
Mentorship	0.0%	0	0.0%	0	0.0%	0
Listservs	3.7%	1	8.3%	1	0.0%	0
Regular discussion sessions among peers	18.5%	5	16.7%	2	7.1%	1
Observations of other distance courses	11.1%	3	16.7%	2	0.0%	0
Web-based tutorials	18.5%	5	16.7%	2	21.4%	3
One-on-One training	0.0%	0	0.0%	0	0.0%	0
Other	0.0%	0	0.0%	0	0.0%	0

Note. 22 valid responses for the 2-Year Institutions in North Carolina, 11 valid responses for

the 4-Year Institutions in North Carolina, and 11 valid responses for the 2 & 4-Year

Institutions outside of North Carolina.

The responses varied for the "on-campus" training attended in the past year. The public 2-year educational institutions in North Carolina responded with 44.4% not attending any "on-campus" training while only 25.0% responded the same for public 4-year educational institutions in North Carolina, and all respondents from the 2 and 4-year public educational institutions outside of North Carolina attended some form of "on-campus" training within the past year. The respondents from the public 2-year educational institutions in North Carolina next highest response rate was training (25.9%). The public 4-year educational institutions in North Carolina had several high responses including: 58.3% printed material, 50.0% training, and 41.7% for both web-based tutorials and regular discussion sessions among peers. The 2 and 4-year public educational institutions outside of North Carolina respondents also had high response rates to the following: 50.0% training, 42.9% for both printed material and observations of other distance courses and 35.7% web-based tutorials.

Table 2

Attendance of On-Campus Training for Public Educational Institutions Inside and Outside of

North Carolina

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
I did NOT attend any ON-CAMPUS training concerning online teaching this past year.	44.4%	12	25.0%	3	0.0%	0
Conferences	3.7%	1	25.0%	3	0.0%	0
Group sessions	11.1%	3	25.0%	3	28.6%	4
Training	25.9%	7	50.0%	6	50.0%	7
Printed materials	18.5%	5	58.3%	7	42.9%	6
Mentorship	0.0%	0	0.0%	0	14.3%	2
Listservs	0.0%	0	8.3%	1	0.0%	0
Regular discussion sessions among peers	11.1%	3	41.7%	5	21.4%	3
Observations of other distance courses	0.0%	0	33.3%	4	42.9%	6
Web-based tutorials	7.4%	2	41.7%	5	35.7%	5
Other	0.0%	0	0.0%	0	7.1%	1

Note. 22 valid responses for the 2-Year Institutions in North Carolina, 11 valid responses for

the 4-Year Institutions in North Carolina, and 11 valid responses for the 2 & 4-Year

Institutions outside of North Carolina.

Best Practices Training and Usage in the Online Course

There were two research questions asked if the participant was trained in best practices and what best practices they utilized in their online course. The respondent could answer multiple times and answers included: timely feedback, supporting students though online communications, redesigning (chunking) learning resources, setting rules for a friendly online environment, setting up group activities and group pages, etc. Again, respondents could choose all that applied.

The responses from public 2-year educational institutions in North Carolina had three major areas of training in best practices and they were: timely feedback, 48.1%; setting rules for a friendly online environment, 40.7%; and using online assessment tools (e.g. quizzes), 37.0%.

The responses from the public 4-year educational institutions in North Carolina had similar responses with: 33.3% responding that they received training in timely feedback, and 25% for guiding students to external online resources, using Centra® for live voice chat, and providing detailed syllabus information (e.g. learning modules).

Finally, the 2 and 4-year public educational institutions outside of North Carolina responses were: 57.1% for both providing detailed syllabus information (e.g. learning modules) and using online assessment tools (e.g. quizzes). Respondents also have high responses for the following: 50% for timely feedback, setting rules for a friendly online environment, guiding students to external resources, and using discussion boards to facilitate interaction.

The next set of responses dealt with actual use of best practices in the classroom. The responses from public 2-year educational institutions in North Carolina had three major areas of using best practices and they were: timely feedback, 74.1%; supporting students through online communication, 66.7%; and using discussion boards to facilitate interaction, 63.0%. Respondents also rated highly using online assessment tools (e.g. quizzes), 55.6%; setting rules or a friendly online environment, 55.6%; providing introduction activities, 55.6%; and providing detailed syllabus information (e.g. learning modules), 59.3.

The responses from the public 4-year educational institutions in North Carolina had similar responses with use of the following best practices in their online courses: timely feedback, 75.0%; supporting students through online communication, 66.7%; and providing detailed syllabus information (e.g. learning modules), 58.3%. Respondents also rated (50%) using all of the following: using chatrooms to facilitate interaction, guiding students to external online resources, using online assessment tools (e.g. quizzes), and guiding students to online library resources.

Finally, the 2 and 4-year public educational institutions outside of North Carolina responses were 71.4% for all the following best practices in their online courses: timely feedback, supporting students through online communication, using online assessment tools (e.g. quizzes), providing detailed syllabus information (e.g. learning modules). Respondents also rated highly the following areas: guiding students to external resources, 64.3%; guiding students to online library resources, 57.1%, and both setting up group activities and group pages and providing introduction activities at 50.0%.

Table 3

Best Practices Training for Public Educational Institutions Inside and Outside of

North Carolina

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
Timely feedback	48.1%	13	33.3%	4	50.0%	7
Supporting students through online communications	18.5%	5	16.7%	2	28.6%	4
Redesigning (chunking) learning resources	11.1%	3	16.7%	2	21.4%	3
Setting rules for a friendly online environment	40.7%	11	16.7%	2	50.0%	7
Setting up group activities and group pages	22.2%	6	0.0%	0	35.7%	5
Using discussion boards to facilitate interaction	33.3%	9	16.7%	2	50.0%	7
Using chatrooms to facilitate interaction	0.0%	0	16.7%	2	28.6%	4
Guiding students to external online resources	29.6%	8	25.0%	3	50.0%	7
Including graphics, sound and video to create a sense of "place"	14.8%	4	0.0%	0	28.6%	4
Using voiceover with PowerPoint® (PPT) or PPT Producer® for instruction	14.8%	4	8.3%	1	35.7%	5
Using Camtasia® for instruction	11.1%	3	16.7%	2	7.1%	1

Table 3

Best Practices Training for Public Educational Institutions Inside and Outside of

North Carolina (continued)

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
Using Centra® for live voice chat	0.0%	0	25.0%	3	0.0%	0
Using online assessment tools (e.g. quizzes)	37.0%	10	8.3%	1	57.1%	8
Using proctored assessment avenues	0.0%	0	0.0%	0	14.3%	2
Using chat or instant messaging for online office hours	3.7%	1	0.0%	0	28.6%	4
Guiding students to online library resources	14.8%	4	16.7%	2	42.9%	6
Providing detailed Syllabus Information (e.g. Learning modules)	14.8%	4	25.0%	3	57.1%	8
Providing Introduction activities	18.5%	5	8.3%	1	28.6%	4
Other	3.7%	1	8.3%	1	21.4%	3

Note. 22 valid responses for the 2-Year Institutions in North Carolina, 11 valid responses for

the 4-Year Institutions in North Carolina, and 11 valid responses for the 2 & 4-Year

Institutions outside of North Carolina.

Table 4

Best Practices Used in Online Courses for Public Educational Institutions Inside and Outside of

North Carolina

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
Timely feedback	74.1%	20	75.0%	9	71.4%	10
Supporting students through online communications	66.7%	18	66.7%	8	71.4%	10
Redesigning (chunking) learning resources	29.6%	8	41.7%	5	42.9%	6
Setting rules for a friendly online environment	55.6%	15	25.0%	3	42.9%	6
Setting up group activities and group pages	22.2%	6	41.7%	5	50.0%	7
Using discussion boards to facilitate interaction	63.0%	17	58.3%	7	42.9%	6
Using chatrooms to facilitate interaction	3.7%	1	50.0%	6	35.7%	5
Guiding students to external online resources	40.7%	11	50.0%	6	64.3%	9
Including graphics, sound and video to create a sense of "place"	25.9%	7	33.3%	4	28.6%	4
Using voiceover with PowerPoint® (PPT) or PPT Producer® for instruction	3.7%	1	33.3%	4	21.4%	3
Using Camtasia® for instruction	14.8%	4	25.0%	3	7.1%	1

Table 4

Best Practices Used in Online Courses for Public Educational Institutions Inside and Outside of

North Carolina (continued)

Response	2-Year NC Institutions		4-Year NC Institutions		2 & 4-Year Outside NC Institutions	
	f	Count	f	Count	f	Count
Using Centra® for live voice chat	0.0%	0	16.7%	2	0.0%	0
Using online assessment tools (e.g. quizzes)	55.6%	15	50.0%	6	71.4%	10
Using proctored assessment avenues	18.5%	5	33.3%	4	0.0%	0
Using chat or instant messaging for online office hours	14.8%	4	33.3%	4	28.6%	4
Guiding students to online library resources	37.0%	10	50.0%	6	57.1%	8
Providing detailed Syllabus Information (e.g. Learning modules)	59.3%	16	58.3%	7	71.4%	10
Providing Introduction activities	55.6%	15	33.3%	4	50.0%	7
Other	7.4%	2	16.7%	2	21.4%	3

Note. 22 valid responses for the 2-Year Institutions in North Carolina, 11 valid responses for

the 4-Year Institutions in North Carolina, and 11 valid responses for the 2 & 4-Year

Institutions outside of North Carolina.

Implications and Conclusion

Of the 117 potential respondents, 44 participants completed the survey for a response rate of 37.6%. This is in agreement with the typical email survey response rate of 36.83%.[23] The results of this study are important in that the data collected emphasizes a need for further research in the

areas of faculty training for online courses. Overall, in this study a large portion of participants, both those within the state of North Carolina and those outside the state, noted that they did not receive off-campus training concerning online teaching this past year, indicating that faculty members embraced the idea that training in support for online teaching should come from the institution of their affiliation. When participants did note that they had attended off-campus training, the training took the form of printed materials, conferences, and web-based training. While participants from 4-year institutions selected attending conference and reviewing printed materials most often, participants from 2-year institutions selected web-based training. This could be because of the high cost associated with conference attendance and the low cost of web-based training,[14] suggesting that 4-year institutions may have more flexibility in utilizing funding for training purposes.

The listing of mentorship as a training mechanism for online teaching was not selected by either participants from 2-year or 4-year institutions from within the state of North Carolina, indicating that mentorship from off-campus locations was not a practiced technique. It is interesting to note that while mentoring could serve the population well in training and supporting faculty members who teach online,[12] it is seemly being under utilized or not utilized at all, possibly due to the lack of the necessary, consistent structure within institutions to support a quality mentorship throughout several institutions.

Training received on the participants' campus was somewhat more prevalent in 4-year institutions within the state when compared with 2-year institutions. This indicates a substantial need for training to be implemented within the 2-year educational institutional system, though this is assuming that faculty members will take advantage of the offering of training in a continuous manner. Since faculty members are constrained by time due to other responsibilities, this could account for lack of participation in training programs that are already in place. Lack of participation could also be the results of offering a lower quality of faculty training. Faculty members outside the state of North Carolina also indicated that they attended training for the online courses they taught on their campuses and that they observed other distance courses, participated in mentorship and web-based training more that their counterparts in state.

Providing best practices during the online course is viewed as one outcome of training for teaching online courses. Both in-state and out-of-state participants appeared to understand the need for timely feedback for assignments in online courses and noted that this best practice was used frequently, along with setting rules from a friendly online environment, guiding student to external sources and using discussion boards to facilitate interaction. Institutions outside of the state went further and noted that using online assessment tools, guiding students to library resources, and providing detailed syllabi information was also a much-utilized best practice within online courses.

Through this study, it is apparent that the institutions within the state of North Carolina still need to dedicate time and effort to the training of their faculty who teach online. Though lack of funding is certainly an issue, there are practices which could be utilized with minimal funding. Peer discussions, observations of current online courses utilizing best practices, and a structured mentorship program could send faculty members on the path to learning practices that promote student success and higher learning. It may be necessary for 2-year institutions to review training

offered for teaching online in order to address the issue of faculty members not attending training within the institution, whether it is implementing new types of training or revisions to current training to make the training more palatable.

It is suggested that research projects be continued in order to gather more information concerning training faculty members to teach online. Data collected, such as current available training at institutions, student satisfaction, and student evaluation could prove to be important in promoting student success by training faculty to be successful online instructors.

References

1. Allen, E, & Seaman, J (2006). Making the grade online education in the United States, 2006.Needham: Sloan-C.
2. Bower, B. (2001).Distance Education: Facing the Faculty Challenge. Online Journal of Distance Learning Administration. 4, 1-6.
3. Braxton, J. M., Olsen, D., & Simmons A. (1998). Affinity disciplines and the use of the principles of good practice for undergraduate education. Research in Higher Education, 39(3), 299-318.
4. Buckley, K. (2003). How principles of effective online instruction correlate with student perceptions of their learning. Orlando, FL: University of Central Florida.
5. Busch, S., & Johnson, S. A. (2005). Professors' Transition to Online Instruction. Distance Learning. 2, 29-34
6. Chickering, A. W., & Ehrmann, S. C. (1996). Implementing the seven principles: Technology as a lever. American Association of Higher Education Bulletin.
7. Chickering, A., & Gamson, Z. (Eds.). (1987). Seven principles for good practice in undergraduate education. AAHE Bulletin, 38(7) 3-7.
8. Chickering, A., & Gamson, Z. (Eds.). (1991). Applying the seven principles for good practice in undergraduate education. (47th ed.). San Francisco: Jossey-Bass.
9. Cross, P. K. (1999). What do we know about students' learning, and how do we know it? Innovative Higher Education, 23(4), 255-270.
10. Dooley, K. E., & Magill, J. (2002). Faculty perception and participation in distance education: Pick fruit from the low-hanging branches. In R. Discenza, C Howard, & K. Schenk (Eds.), *The design and management of effective distance learning programs* (pp. 75-92). Hershey, PA: Idea group.
11. Ehrmann, C. , & Hewett, B. (2005). Designing a Principles-based Online Training Program for Instructors. Distance Learning. 2, 9-13.
12. Gazza, E. (2004). Establishing a Supportive Culture through Mentorship. *Phi Kappa Phi Forum*, 84 (4),47-48.
13. Graham, C., Cagiltay K., Craner J., & Lim, B. (2000). Teaching in a web based distance learning environment. CRLT Technical Report, 13.Phoenix, AZ: The Oryx Press.
14. Jung, I. (2005) Cost-Effectiveness of Online Teacher Training. *Open Learning*. 20 (2), 131-146.
15. Kosak, L., Manning, D., Dobson, E., Rogers, L., Cotnam, S., Colaric, S., & McFadden, C. (Fall/ 2004). Prepared to teach online? Perspectives of faculty in the university of North Carolina system, *Online Journal of Distance Learning Administration, 7* (3) Retrieved on September 9, 2006: (http://www/westga/edi%7Edistance/ojdla/fall73/kosak73.html).
16. Laird, E. (2003).I'm Your teacher, Not your Internet-Service Provider. The Chronicle of Higher Education. 49, 5.
17. Lee, J. (2001). Instructional support for distance education and faculty motivation, commitment, satisfaction. *British Journal of Educational Technology, 32*(2), 153-160
18. Lewis, Cassandra C. and Abdul-Hamid, Husein. (2006) Implementing effective online teaching practices: Voices of exemplary faculty. *Innovative Higher Education*, 31: 2: 83-98.
19. Miller, T. W., & King, F. B. (2003). Distance education: Pedagogy and best practices in the new millennium. *International Journal of Leadership in Education, 6*(3), 283-297.

20.   Muirhead, Brent and Betz, Muhammed. (2002) Faculty training at an Online University. *USDLA Journal: A refereed journal of the United States Distance Learning Association*, 16: 1: 10 pages. Retrieved October 20, 2006 (http://www.usdla.org/html/journal/JAN02_Issue/article04.html).

21.   Patrick, P. & Yick, A. G. (2005). Standardizing the interview Process and developing a faculty interview rubric: An effective method to recruit and retain online instructors. The Internet and Higher Education. 8, 199-212.

22.   Schoenfield-Tacher, Regina and Persichitte, Kay A. (2000) Differential skills and competencies required of faculty teaching distance education courses. *International Journal of Educational Technology*, 2: 1: 22 pages. Retrieved October 20, 2006 (http://smi.curtin.edu.au/ijet/v2n1/schoenfield-tacher/).

23.   Sheehan, K. (2001) E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, 6 (2), 1-20. Retrieved March 2, 2007, from http://jcmc.indiana.edu/vol6/issue2/sheehan.html.

24.   Shelton, K., & Saltsman, G. (2005). *An Administrator's Guide to Online Education*. USDLA Book Series on Distance Learning. Greenwich,CN: Information Age Publishing.

25.   Taylor, J. (2002). The use of principles for good practice in undergraduate distance education. Blacksburg, VA: Virginia Polytechnic Institute and State University.

26.   The Ohio Learning Network Task Force (2002). Quality learning in Ohio and at a distance, a report of the Ohio Learning Network Task Force on quality in distance learning.

27.   United States Department of Education, National Center for Education Statistic. (1998) Distance education in higher education institutions. Available from the World Wide Web at http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=98062 . Accessed December 12, 2006

28.   United States Department of Education, National Center for Education Statistics. (1999). Distance Education at Post Secondary Education Institutions 1997-1998, NCES 2000-13, by Laurie Lewis, Kyle Snow, and Elizabeth F. Westat. Project Officer: Bernie Greene. Washington, DC.

29.   United States Department of Education, National Center for Education Statistics. (2003). Distance Education at Degree-Granting Postsecondary Institutions: 2000-2001, NCES 2003-017, by Tiffany Waits and Laurie Lewis. Project Officer: Barnard Greene. Washington, DC.

30.   United States Department of Education, National Center for Education Statistics. (2004). The condition of education 2004. Retrieved October 1, 2006 from http://nces.ed.gov/pubs2004/2004077.pdf

31.   United States Department of Education, National Center for Education Statistics. (2006). The condition of education 2006. Retrieved October 1, 2006 from http://nces.ed.gov/pubs2006/2006071.pdf

32.   Willis, B. (1994). Enhancing faculty effectiveness in distance education. In B. Willis (Ed.), *Distance education: Strategies and tools* (pp. 277-290). Edgewood Cliffs, NJ: Educational Technology.

33.   Wolf, Patricia D. (2006) Best practices in the training of faculty to teach online. *Journal of Computing in Higher Education*, 17: 2: 47-78.

34.   Yang, Y. and Cornelius, L. (2005) Preparing instructors for quality online education. *Online Journal of Distance Learning Administration* 8(1). Retrieved October 20, 2006: (http://www.westga.edu/~distance/ojdla/spring81/yang81.htm).

35.   Young, J. R. (2001).Maryland Colleges Train Professors to Teach Online. The Chronicle of Higher Education. 47, 48.