DOCUMENT RESUME

ED 481 131 CG 032 662

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TITLE	Counselor Preparation for a Cyber World: Curriculum Design and Development.
PUB DATE	2003-11-00
NOTE	18p.; In: "Cybercounseling and Cyberlearning: An Encore"; see CG 032 660.
PUB TYPE	Guides - Classroom - Teacher (052)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Counseling; *Counselor Training; Curriculum Design; *Curriculum Development; Experiential Learning; Instructional Development; Skill Development; Technology; *Technology Education
IDENTIFIERS	Online Counseling

ABSTRACT

The purpose of this document is to describe the development and implementation of a course in technology in counselor education. The main goal of the course was to provide students with an overview of the use and application of technology in counseling and related fields. The four objectives of the course were to: (a) provide an introduction to the use and application of hardware and software solutions; (b) afford opportunities for hands-on experience with technology; (c) provide an arena for students to demonstrate their technology skills; and (d) to enhance technology skills and knowledge in a variety of counseling specialization areas. The document details syllabus development topics covered, assignments, technology requirements for implementing the course, and pedagogical implications. It also highlights the application of the various emerging technologies, such as video conferencing, digital media development, and e-learning instruction tools for the counseling profession. (Contains 42 references.) (Author)

Counselor Preparation For a Cyber World: Curriculum Design and Development

by

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Chapter Two

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Abstract

The purpose of this chapter is to describe the development and implementation of a course in technology in counselor education. The main goal of the course was to provide students with an overview of the use and application of technology in counseling and related fields. The four objectives of the course were to (a) provide an introduction to the use and application of hardware and software solutions; (b) afford opportunities for hands-on experience with technology; (c) provide an arena for students to demonstrate their technology skills and (d) to enhance technology skills and knowledge in a variety of counseling specialization areas. The chapter details syllabus development, topics covered, assignments, technology requirements for implementing the course and pedagogical implications. The chapter also highlights the application of the various emerging technologies such as video conferencing, digital media development, and e-learning instructional tools for the counseling profession.

Counselor Preparation For a Cyber World: Curriculum Design and Development

The growing interface between technology and service delivery is now widely acknowledged by the counseling profession (Bowman & Bowman, 1998; Bluhm & Kishner, 1988; Guterman & Kirk, 1999; Johnson & Sampson, 1985; Lambert, 1988; Lewis, Coursol, Khan & Wilson, 2001; Myrick & Sabella, 1995; Sampson, Kolodinsky & Greeno, 1997). Information technologies are employed for the purpose of information dissemination (Stevens & Lundberg, 1998; Thompson, 1999; Bowman & Bowman, 1998; Jerome, DeLeon, James, Folen, Earles & Gedney, 2000), cybercounseling (Bloom, 1998, Haas, 2000; Lee, 2000, Manhal-Baugus, 2001, Sussman, 2000), cybersupervision (Coursol & Lewis, 2000; Myrick & Sabella, 1995, Neukrug, 1991, Sampson, et al., 1997), group work (Bowman & Bowman, 1998), and on-line counselor education (Altekruse

& Brew, 2000, Peterson, 2000, Slencak, 2000). Today the Internet has made opportunities for the professional development of counselors more readily available and is a popular conduit for disseminating counseling related information to the public (Guterman & Kirk, 1999).

The American Counseling Association (ACA) and the National Board for Certified Counselors (NBCC) both envision that with the increased comfort with technology among the general population, cybercounseling is likely to become an emerging area for the profession (Bloom, 1997; Lee, 1998). Proactively, these bodies have established ethical standards for the practice of cybercounseling.

The pervasiveness of technology in counseling and related fields is only likely to increase in the future. As it continues to evolve to higher levels of sophistication, the availability of more versatile technologies will allow for greater application of technology to counseling, human services and related fields.

While it is also important that professionals are aware of the power of technology to expand services to certain groups (Jerome et al., 2000; Sampson, et al., 1997; Sussman, 2000; Stamm, 1998), they also need to recognize the challenges associated with it. Some of the more commonly cited concerns are the ambiguity of mental health related information available on the Internet including information about counselors and their areas of expertise (Bowman & Bowman, 1998; Jerome et al., 2000; Manhal-Baugus, 2001; Sampson, et al., 1997), access (Lee, 2000), counselor licensure (Manhal-Baugus, 2001), confidentiality (Attridge, 2000; Bloom, 1997; Bowman & Bowman, 1998; Haas, 2000; Jerome et al., 2000; Sussman, 2000), security (Bowman & Bowman, 1998; Jerome et al., 2000), and informed consent (Attridge, 2000; Bowman & Bowman, 1998; Jerome et al., 2000).

In the context of an information age it is imperative that counselor education students have the ability to use technology efficiently and appropriately (Casey, 2000; Myers & Gibson, 2000). Guterman & Kirk (1999) suggest that it is essential for counselor education students to acquire competence with technology such as the Internet, so that they are prepared to serve a client base that is comfortable with technology.

However, not all counseling professionals acquire the ability to apply technology effectively. Myers & Gibson (2000) suggest that students in counseling preparation programs do not possess well-developed technology skills. Proactively, some professional bodies including the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) and the Association for Counselor Education and Supervision (ACES) have addressed the need for technological competence for counselors and

counselor education students by identifying the technology competencies that can be infused into the graduate curriculum. In 1999, ACES identified twelve technology competencies for counselors that range from basic skills such as the use of video recorders to more advanced applications such as the creation of web pages. Therefore, it is necessary to increase the level of technological proficiency among counseling professionals and especially among students in counselor education programs.

It also appears that students in counselor education programs see the value of and are interested in developing technological competencies. Lewis, et al. (2001) found that graduate students recognized the need to acquire proficiency in basic technology skills. This willingness to acquire the skills to use technology is perhaps reflective of the pervasiveness of and growing societal comfort with technology (Lewis, Coursol & Wahl, 2001).

One way to integrate technology into the counselor education curriculum is to offer a course in technology designed specifically for students in counseling and related fields. Such a course can be customized to meet the specific needs of novice professionals and introduce them to the application and ethical issues associated with the utilization of technology. If counselor education students are introduced to technology during their graduate preparation, they can learn to recognize and harness its potential, become aware of the judicious use of technology, and be more knowledgeable of its benefits and shortcomings.

The purpose of this chapter is to describe a technology course that was developed specifically for counselor education students. The chapter details syllabus development, assignments, technological requirements for implementing the course, and pedagogical considerations. It also highlights the application of the various emerging technologies such as video conferencing, digital video development, and e-learning instructional tools for the counseling profession. The chapter offers suggestions for designing a "technology in counseling" course and provides examples of course assignments and student projects.

Course Design and Development

Purpose of the Course

The "technology in counseling" course was initially developed in summer 2001 for graduate students in a counselor education program. The first time the course was offered it was scheduled for one week at 7.5 hours per day and one Saturday for eight hours, for a total of 45 contact hours. The second time the course was offered for a four-week session, three days

a week, over the course of a summer semester. Currently, all students in the counselor education program have the option to take the course as a three-credit hour elective.

The primary goal of the course was to provide students with an overview of the use and application of technology in counseling and related fields. The four objectives of the course included (a) the introduction to the use and application of hardware and software solutions; (b) hands-on experience with technology; (c) opportunities for students to demonstrate their technology skills; and (d) the enhancement of student technology skills and knowledge in a variety of counseling specialization areas.

Syllabus Development

The design and the content of the course was guided by the technology skills and competencies identified in the literature. A key concern was to offer students the opportunity to apply technology and to ensure that they developed the skills to use it appropriately. Casey (2000) suggests that it is critical for counselor education students to develop the ability to use technology in an ethical manner.

The diversity of topics addressed in the syllabus ensured that students were introduced to a variety of technology applications in counseling. The course addressed a wide range of topics that were relevant to the specialization areas of each student. Accordingly, the course included the following topics:

- operating system management and basic trouble shooting strategies, use and application of technology resource tools (digital video projectors, scanners, digital cameras, digital camcorders, and web cameras);
- information and communication technology (navigating the Internet, e-mail, web resources);
- professional productivity tools (presentation software, word processing, spreadsheets, web development, researching online, assessment software, and scheduling and calendar software);
- multimedia technology enhancement tools (digital video, digital portfolio, and online resource access tools);
- applications of on-line instruction (distance education, virtual universities, and use and access in higher education);
- applications of technology for counselors (client documentation, diagnostic/treatment planning software, and cybercounseling); and

- ethical considerations of technology in counseling and student affairs.

The syllabus for the course listed five textbooks. One textbook was required and the other four were recommended as ancillary resources specific to students' specialization areas. The required text for the course was *Cybercounseling and Cyberlearning: Strategies for the Millennium* by Bloom and Walz (2000). This text was required because it provided the most comprehensive and current overview of the application of technology to counselor education. The four recommended texts included *New directions for student services, using technology to promote student learning: Opportunities for today and tomorrow* by Engstrom and Kruger (1997) that highlighted the application of technology in higher education settings, and the *Quick Guide to Using the Internet for Counseling* by Pachis, Rettmann and Gotthoffer (2001) was a basic reference for using the Internet. Additionally, the *Insiders Guide to Mental Health Resources Online* by Grohol (2001) served as a guide to search tools and online databases for students, and Tapscott's (1997) *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, provided an introduction to interactive digital media and a discussion of the risks and benefits associated with implementing technology-based strategies in organizations.

Assignments for the Course

The philosophy guiding course assignments was to ensure that students had the opportunity to demonstrate the technology skills developed during the course. Assignments were also intended to provide students with opportunities to use their creativity and to develop tangible products that could assist them during the job search process and professionally in the future. Assignments were designed so students could demonstrate technology competencies identified by CACREP (2001) and ACES (1999). Assignments were scheduled throughout the course such that each one built upon skills that were developed in earlier assignments. The course included the following five assignments: the development and presentation of two topic areas utilizing multimedia presentation software; the development of an initial digital portfolio that students added to throughout the duration of their program, the establishment of an online class and facilitation of a threaded discussion, and two digital video projects.

The first assignment was to develop multimedia presentations using a commonly available presentation software product, Microsoft PowerPoint (2000). Each student had to undertake two individual presentations on two

topics relevant to their specialization area. To facilitate the development of technology competencies, students were required to use multimedia equipment, provide Internet resources, hyperlink the resources within the PowerPoint presentations, upload handouts and the PowerPoint presentations to their online course and lead a threaded discussion with their peers about their presentation topics.

The digital portfolio project required students to develop a career-based portfolio. Students were provided with a handout outlining the purpose, objectives and content of career digital portfolios. This assignment also allowed students to demonstrate other technology skills such as scanning, the use of digital cameras and digital video cameras, and importing these products into their digital portfolio. As with the first assignment, this project provided additional experience with some of the more advanced features of presentation software including hyper-linking and integrating digital video and audio into the digital portfolio.

Scheduling presentations and digital portfolio assignments sequentially provided students with the opportunity to learn the fundamentals of the software package before applying it creatively and using more advanced functions. Through the completion of two multimedia classroom presentations students acquired competency, confidence and comfort with the presentation software. Since they were familiar with the basic elements of presentation software, students were more prepared to develop a career digital portfolio. Thus, they could focus on the purpose and design of the digital portfolio project rather than on learning the features of the software.

A third assignment involved the establishment of an online course using web-based course management tools. Students were required to set up an online course using Blackboard (2000) or Educator (1998) software. As part of the assignment, students had to upload the presentation handouts and the multimedia presentations they had created for the first assignment. The online course assignment served as a springboard for the fourth assignment in which students facilitated an online threaded discussion. As part of the fourth assignment students initiated and monitored a threaded discussion about the topic on which they presented in their first assignment.

The culminating assignment for the course was the development of a digital movie project. For this project, students were assigned to groups of two or three participants and developed a digital movie on a topic related to their interests and specialization area. Developing projects relevant to each student's specialization area can result in tangible products that can be used during practicum, internship and professionally. As part of the project, students were responsible for identifying a problem, brainstorming solutions, evaluating solutions, communicating their findings and reflecting upon their

learning process through digital media. There was wide diversity in the kinds of topics around which students developed their digital movies. The topics included such areas as school violence, depression, grief and loss, diversity, and orientation to technology resources on a college campus.

Technology Requirements

The successful implementation of a technology course that has a strong experiential component is contingent upon student and instructor access to technology. The hardware that was necessary to conduct this course included computers, scanners, digital cameras, digital camcorders, digital projectors, server space, and Internet access. To ensure student access to technology, laptops, digital cameras, and digital camcorders could be checked out from the department for the duration of the course. The laptops were loaded with the necessary software so that students could work on their projects on their own time and were not limited to lab time availabilities. Server space was available on university computers as well as those provided through the Apple iTools (2002) website. Some of the software requirements included multimedia presentation software such as PowerPoint, web-based course management software such as Blackboard (2000) or Ucompass Educator (1998), web development software accessed through the Apple iTools (Apple, 2002), and digital movie software such as iMovie (Apple, 2001) and iPhoto (Apple, 2002).

Pedagogical Implications for Student Learning

The primary goal of this course was to allow students to develop technology competence and use it as a vehicle to facilitate problem solving and research, promote learning, and enhance communication. Basic sequential learning guidelines were followed to ensure that each project assignment built upon skills previously acquired in the course. The course was experiential in nature with each assignment involving inquiry-based learning and peer collaboration and instruction. The group and individual projects accommodated for the diverse specialization areas of the students and their different learning styles.

The capstone digital video assignment consolidated student learning acquired during the course. The nature of the assignment encouraged collaboration within and between groups, promoted peer instruction, enhanced critical thinking, inspired creativity, and fostered self-expression. A surprising outcome was that the assignment had the effect of motivating

and exciting students about the application of technology in counselor education. It also created an environment where learning was fun and technology self-efficacy was facilitated, an effect particularly important given that some students possessed only basic technological competence such as word processing skills and could be described as techno-phobic. The assignment served as a motivational experience that transformed students formerly afraid of technology into individuals who had developed a newfound appreciation of the potential to apply technology in future endeavors.

Challenges

Several challenges were encountered during the development and implementation of the course. Some had been anticipated while others were recognized during the implementation phase. These challenges are discussed in relation to the broader areas of technology and class design.

A primary challenge was related to student use of and access to technology. The success of a "technology in counseling" course is contingent upon providing students with opportunities to learn through hands-on experience. However, not all students own the requisite hardware and software addressed during the course such as computers, scanners, digital cameras, digital camcorders and software. For this course, the students had access to the department-owned technology that they could check out for the duration of the course. This allowed students to work on projects outside of class and on their own timeline. An additional advantage of allowing students to check out the technology was that it provided them the opportunity to gain experience at their own pace under conditions in which they did not feel the pressure to perform at the level of their more technology-competent peers.

Another challenge is having technology support personnel available to maintain equipment. Tech support is crucial to ensure that the hardware and software is set-up and in proper working condition so that valuable class time is not spent trying to troubleshoot technical problems. While troubleshooting is part of the course curriculum, it is not something that is desirable to manage during every class period. Before the course begins, a proactive approach is to ensure that all technology is in proper working order and to identify the technology support available on-campus in the event of a problem.

In the area of class design one of the challenges was scheduling the course over a short period of time. When the course was first offered, it was scheduled for one week during the summer. This was found to be too

short a time frame for the students to develop quality projects. To address this challenge, the instructor allowed the students extra time beyond the class schedule to complete their projects. Perhaps, if the course was scheduled during the regular semester over the course of 15 weeks or for a longer 4 week summer session, as was the case in 2002, time constraints may not be a challenge.

Differing technology skill levels between students in the class presented another course design challenge. Some students only demonstrated novice word processing skills while others had web page design expertise. Therefore, one challenge for the instructor was to effectively meet the needs of these two very diverse groups. A strategy was to provide students with wide latitude to develop their projects within the parameters of their skill level.

One benefit of the diversity in technology skill levels was that students with lower skill levels quickly realized that they could contribute to and participate in projects in a variety of ways. Through organizational skills, problem solving skills, and creativity they were able to contribute to the projects thus increasing their confidence and sense of competence. Through these assignments students learned that creating a technology product was not solely dependent upon their technology competence. In fact, they recognized that other higher order thinking processes such as creativity, vision, and project conceptualization played a vital role in the development of the final product.

Another class design challenge was the preparation required for the course. The time commitment, coordination and preparation for this type of experiential course is more than one might expect based on experience with traditional content-focused courses. Such preparation will ensure that lab equipment, servers, laptops, digital cameras and camcorders are available and in good working condition. Additionally, with technology evolving at such a rapid pace, the instructor may have to plan for and identify cutting-edge content areas where guest speakers may be appropriate. Some of these speakers are likely available within the university and local community. Lastly, given the experiential and tutorial nature of the course, it can be helpful for the instructor to plan ahead for those occasions when additional instructional support is necessary. This was particularly true during the class sessions that focused on digital video.

Lessons Learned: Recommendations for the Future

Since the initiation of the first course offering, several lessons have been learned about the planning, organization, and development of the

course. Probably the most critical lesson was the need to plan in advance for technology acquisition prior to offering the course. Strategically, the department began to identify and purchase the necessary technology. Over time the department acquired laptops, digital cameras, digital camcorders, scanners, and a digital projector. Having departmental equipment ensured that students enrolled in the course had access to the necessary technology and could check out the equipment they required.

Departments may want to consider developing a set of protocols about student responsibility for the proper care and maintenance of the technology. Some of these protocols should address instances where equipment is either damaged or lost. It is also recommended that departments develop a strategy for managing some of the ancillary costs associated with the course. Accordingly, it is suggested that students purchase their own digital storage mediums such as digital film, CDs, and DVDs. This will ensure that the department does not incur unnecessary expenditures.

The department may also want to consider developing and maintaining a library of the various student digital projects that are created as part of the class. These projects can serve as resources for students in future classes. Tangible examples of projects in different specialization areas are available to students and can serve as a springboard for ideas for their projects.

A related lesson was to make sure that all the technology required for the course was available and ready for use prior to the commencement of the course. For students who may be techno-phobic, the experience of malfunctioning equipment may further support their negative beliefs about technology. In addition, the time required to attend to malfunctioning equipment or to upload software might consume valuable class time when students could have been working on projects.

After offering the course on two occasions several lessons about class development and design were also learned. A critical consideration at the outset of the course is to assess the level of technology competence among the students. It is not unusual to find that students enrolled in the course possess widely differing levels of technology skills. Having some knowledge of the skill level of the students is important for two reasons. First, it provides the instructor with an idea of the needs of the students in the class and the course adjustments that might be necessary. Additionally, the instructor can use the information to assign students to group projects. From an instructional perspective, it was found that assigning students of widely differing skill levels to project groups might make the experience less rewarding for all participants. When assigning students to group projects, it is recommended that students partner with others who possess relatively similar levels of competence. This will ensure that all students have the

opportunity to develop the requisite skills and those with higher technology skill levels do not commandeer the projects.

The design of the course was experiential in nature and as a result was time intensive for both the instructor and students. As students learn the new technologies they often encounter difficulties with troubleshooting and project development that can place heavy demands on the instructor's time. If the course is team taught with another faculty member the time demands on a single instructor will be reduced. If this is not a possibility, the office of information technology on campus can serve as a valuable resource for support. In addition, the authors discovered that students who had previously taken the course and student interns from the instructional technology program were very helpful in providing individualized assistance.

Conclusion

All indicators suggest that technology will continue to grow at exponential rates in the future. It is therefore apparent that technological competence and proficiency has become necessary for counselors in an information age (Guterman & Kirk, 1999; Myers & Gibson, 2000). Additionally, there is a growing need for counselors to possess the knowledge and ability to use technology in an appropriate and ethical manner (Casey, 2000). Therefore, counselor education programs need to prepare graduates with the requisite knowledge and skills to ensure that technology benefits both clients and counselors. Offering a technology course for counselor education students allows the coursework to be tailored to the skill level of the students and to the needs of the field.

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