The literature on online instruction and student support services was reviewed to identify the challenges of college academic advising in cyberspace and to develop an advising model geared toward online classroom instruction. The review concentrated on the following areas: research related to effective distance learning and communication; additional characteristics of quality Internet services; and examples of Internet student support services. The review established that the following issues must be addressed when designing student support services for delivery via the Internet: access, teaching/learning processes, quality indicators or characteristics, elimination of duplicative information, creating a comfortable environment, and technological design that enhances content/service delivery. The following were among the specific suggestions offered: establishing chat rooms with advisors assigned at specific times of the day or night; using e-mail addresses for students to contact advisors; assuring authentication, confidentiality, and integrity; encrypting e-mail for especially sensitive information; and developing "usual" solutions to "usual" questions and putting the information on the World Wide Web for students to consider. (Contains 10 references.) (MN)
ADVISING CHALLENGES IN CYBER SPACE

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Abstract

Providing students with an advising model geared to online instruction is needed at the university level. This shift provides student support services, which accommodate online instructional delivery.

A review of the literature indicates that one example of quality Internet student services is the shift libraries have made to provide online resources to students wherever and whenever needed (Chepesiuk, 1998). It has been suggested that traditional advising models do not address student access as needed; this problem is exasperated when considering the typical online student.

Recommendations include the issues of access, rapport, and efficiency. Access is no longer a limiting issue; universities now have infrastructures to offer advising services. Rapport can be addressed through chat rooms with advisers assigned specific times. E-mail allows students to reach advisors, while assuring confidentiality and integrity through authentication. Developing solutions to usual questions and placing this information on the web addresses the efficiency students seek.
ADVISING CHALLENGES IN CYBERSPACE

Introduction

Internet-based classrooms have been cited as offering solutions to educational issues including over-crowded classrooms, the teacher shortage, and a means of providing access to education for populations in rural areas, and older adults working full time or raising a family (Perry, 2000). We know that on-line education has its roots in the 19th century rural correspondence courses offered by universities under the auspices of continuing education; subsequent technological advances allowed teachers to offer courses by radio and then television (Selingo, 1998). Further, according to Penn State’s associate vice president for distance education, Gary Miller, “History shows that distance education has generally increased access to education.”

Changes in delivery methods have also impacted the corporate training world. Learners were considered isolated in more traditional training settings, but according to Charles Jennings of Dow Jones Markets, the rapid developments of Internet technology allow the corporate training professionals to bring students face-to-face at a distance in virtual classrooms. New technologies provide electronic learning environments where students can work with tutors, trainers, teachers and peers. Virtual classrooms offer collaborative experiences that mirror face-to-face contact of learning in classrooms.

There is much support and research to indicate that collaboration adds a vital element to the learning process. Research conducted at Queen’s University, Belfast, found that collaborative learning based on computer conferencing technology supported indepth approaches to learning by encouraging critical evaluation and understanding through electronic discussions. The researchers found that face-to-face sessions encouraged more participation, but that computer conferencing generated more important statements, considered interaction and linked ideas. Learning outcomes were improved (Jennings 1998).

Significance

The significance of Internet-based instruction does not stop with the issue of greater access. It challenges traditional models of college instruction. Course development, teaching/learning styles, quality control, academic integrity, accountability, accreditation, funding patterns controlled by legislation, tuition/fee payments and awarding of credit are issues related to delivering courses online that must be met head-on by our educational community. Providing the variety of student support services taken for granted on the college campus in a time efficient yet effective manner is paramount to the success of online instruction. This paper will focus on the effective delivery of one of these student support services—advising—which touches indirectly on tuition, award of credits and impacts funding issues.
Statement of Problem

The challenge of providing students with an advising model geared to online classroom instruction can be stated in the following question: How can the college/university offer the students selecting online courses as their preferred instructional delivery system the necessary advising services?

Theoretical/Conceptual Base and Related Literature

Many of the issues related to student support services, such as our topic of advising, can be directly linked to the concepts, which have been found to impact effective online courses. For example, a great deal of research has been conducted on classroom approaches and teaching styles best suited for distance learning/online courses. Distinguishing features that characterize effective teaching in the distance learning classroom have been investigated for the past decade. An additional issue has been the impact of the new interactive technologies on the teaching/learning process.

Research related to effective distance learning and communication. One such study conducted in North Carolina in 1995 focused on the distance learning network which involved the University of North Carolina-Wilmington, Cape Fear Community College, New Hanover High School and Hoggard High School in Wilmington. The researcher examined the impact of the distance learning network on the human factors involved in communicating and learning. The research was qualitative in methodology and the results were based on observations, interviews with instructors and students, and participation in the task force meetings aimed at quality curriculum and training. The primary goal of the project was to promote interactive capability of the technology and to extend this style to the classroom. Collaboration was set as a priority, based on the theory stated earlier in this paper that collaboration adds a vital element to the learning process. Bailey and Cotlar (1994) espoused the value of collaborative learning environments in their description of internet teaching: “Students should not be viewed primarily as recipients of information, but as collaborators in the pursuit and creation of knowledge” (p.193). The students and instructors indicated that what we already know and value about effective teaching was perceived to be effective in the distance learning classroom.

While this finding may not come as a surprise to the educator, there were other implications in the study of value as we address the problem of delivering effective advising services: if students are to learn to transcend the distance then their needs must be addressed by the designers of the technology. In other words, we already know a great deal about facilitating the teaching/learning process in more traditional settings. Further, we know the value of creating a comfortable environment in which students can explore complex and diverse ideas. Thus, technological designs must facilitate this interaction to
help bridge the psychological distance (Comeaux, 1997). These study results can be easily extended/applied to an online advising service for our cyberspace students.

**Additional characteristics of quality Internet services.** We are aware that no physical location is necessary for the dissemination of course content; however, provisions for web-based conferencing and specialized “chat rooms” for specific discussions are needed. Additional features required in the distribution of content over the Internet are authentication, confidentiality and integrity. Authentication is necessary to establish and verify the identities of the provider and the receiver. Confidentiality is needed to protect the content and can be achieved through encryption and/or water marking. Encrypted e-mail can also be used for sensitive materials/content. Digital signatures ensure that the information transmitted electronically has not been tampered with (Chandersekaran, 1998).

**Examples of Internet student support services.** In the college/university setting, one outstanding example of quality, Internet student support services is the shift librarians have made to provide online resources to students wherever they are needed. For instance, the University of Maryland University College librarians pride themselves on their ability to deliver services online to students thousands of miles away through the web and a number of delivery systems, such as the library’s distance-education software. The library maintains a virtual reference desk where students can “chat” with a librarian or leave a reference question online (Chepesiuk, 1998).

At Embry-Riddle Aeronautical University, Daytona Beach, Florida, the library has a section in the Compuserve Forum where students post messages; librarians provide "handouts"; students and faculty can contact the library via e-mail for reference assistance, database searches, and document delivery (Chepesiuk, 1998).

These examples are not unlike services provided at Southwest Texas State University by the library services staff. At colleges and universities all over the country, the classroom is shifting away from what has been the traditional center of the educational universe. Students taking courses online in many universities can now access journal articles, books, database searches and reference librarians specializing in research services. “Our goal is to blur completely the line that now exists between the resources and services provided for our residential students and our online students,” stated Tim Robson, an administrator at Case Western Reserve University.

**Recommendations for an Advising Model.** It has been suggested that the more traditional advising models do not address the issue of student access when services are needed. This problem is exasperated when considering the typical online student. Access problems are no longer a limiting issue, as universities now have technological infrastructures to deliver this service, just as they are now offering course work. Further, in the instance of career counseling services, there are numerous software and CD-rom programs available to be included on the web site.
The issue of rapport between the individual student and advisor is a concern in the advising arena, just as it is in the more typical learning/teaching opportunity. The answer lies in alternative delivery methods of offering advising services; we must consider a virtual setting for an advising service. Access to the web is becoming universal; schools need to take advantage of this lengthening of the usual instructional day (Springer, 1999).

Characteristics already mentioned as necessary for a quality, collaborative course offering, equally apply to on-line advising services; these include establishing chat rooms with advisors assigned at specific times of the day or night (Springer, 1999), using e-mail addresses for students to contact advisors, assuring authentication, confidentiality and integrity. As has been suggested for use to protect course content, encrypted e-mail could be used for more sensitive information in our advising model.

One final recommendation is to develop "usual" solutions to "usual" questions and put this information on the web for student use. For instance, sample degree plans could be displayed on the web site for students to consider. This suggestion is similar to a suggestion offered by Dean Loflin, of the liberal arts college at the University of Colorado, Denver in connection with what he calls "capitalizing on the power of computers to let professors have more time teaching" (Guernsey, 1998). Computers, he says, might generate automatic answers to students' most common questions, so that professors don't have to write the same e-mail messages every semester. This same idea applies to redundant advising functions/duties.

Summary/Recommendations

In summary, there are similar issues related to teaching courses on the Internet and offering student support services on the Internet. These issues include access, teaching/learning processes, quality indicators or characteristics, elimination of duplicative information, creating a comfortable environment, and technological design that enhances the delivery of the content and/or service.

One final recommendation or caution is that this suggested advising model is intended for routine college/university advisement and career counseling/advising. On-line services for personal counseling of students is not being recommended. Further, the requisite skills for personal counseling have not been included in this paper.

In predicting or projecting the future of cyberspace applications in the university setting, the following quote by J. W. Hall seems appropriate:

Students in the university of convergence will learn to engage with information, understand how to use it, and gain the skills and intellectual competencies associated with a university graduate. The faculties of the university of convergence will also take on aspects of the teaching role that have heretofore been less prominent or essential. The role of intellectual guide to the student, or mentor, will become more important as students pursue much of the formal instruction, formerly communicated...
through faculty lectures, in a variety of self-paced, student-directed modes. In fact, student planning and academic advisement are likely to move to the very center of the educational process for both students and faculty as both seek to find and use the most useful available resources. The traditional university never gave this critical function more than lip service. Most faculty time was committed to direct instruction and research with little time reserved for direct engagement with individual students. The university of convergence will require a dramatic shift of time commitment toward student advisement. So, although technology offers solutions to the problems and limitations of distance education institutions, technology will also allow the traditional university to address its limitations as well. With technology, the university of convergence will be able to overcome the historic problems that made distance education necessary in the first place (Hall, 1995).
REFERENCES


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