

Effective Student Preparation for Online Learning

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Much anecdotal information abounds on distance learning listservs and in interviews regarding high dropout rates in online courses and the lack of student re-enrollment following participation in an online course. During 1999 and 2000 I studied this phenomena in a small, private, urban university composed of roughly 5,000 students. This article presents my findings and provides one perspective on how effective creation and implementation of a required online student orientation course made a significant difference in student success and re-enrollment in Web-based learning.

The university's population consisted primarily of working adults, with an average age of 33. Even though the university offered a liberal arts curriculum with 25 possible bachelor degree majors, over 60% of the students selected majors in business administration, computer science, or MIS as these were well-supported by their employers. In 1996, when the Internet became a viable means for serving its student population, the university immediately offered online courses in the most popular majors to increase flexible schedule options. However, student success rates in online courses were abysmal, with high dropout rates and low re-registration rates for additional online courses. So, in 1999, I interviewed faculty and students, reviewed student evaluations of online courses and online teachers, and analyzed registration records and dropout rates for online courses. This examination revealed the following issues:

- Student dropout rates were as high as 35% to 50%, compared to 14% for traditional classes.
- Faculty spent excessive time troubleshooting the problems students had with technology.
- Students reported feelings of social isolation in response to electronically delivered homework.

Further research into the problem indicated that the domain of online learning was new to students; many lacked fundamental computer skills and were newcomers to the Internet. This lack of experience impinged on their ability to adapt to the new learning environment. Students were faced with the need to integrate technology with human interaction in order to communicate effectively, but most had no idea how to accomplish this task. Left without the opportunity for face-to-face communication, students quickly felt disconnected from the campus, their motivation dwindled, and they appeared unable to initiate any self-direction in learning.

Solution Strategy

Following an extensive literature review, I hypothesized that the creation and implementation of a student orientation course would provide a significant positive impact. The key to designing this course was to incorporate elements that would provide students an opportunity to familiarize themselves with the technology, the communication tools, and the learning process itself. The course also needed to introduce attributes of online work the students would likely encounter in future courses. This was accomplished by presenting a variety of assignment types and by explaining what was expected of students in terms of participation and conduct. The students then completed all assignments online using the tools and processes they learned.

The course design and its implementation were based on the combined findings of several researchers. The following objectives were particularly important:

- To create opportunities for interaction and communication between students and their instructor (Harasim, 1997; Lefrere, 1997; McVay, 2000; Moore & Kearsley, 1996; and Sponder, 1990).
- To provide skill practice in both technology use and human interface in a Web-based environment (Lefrere, 1997; McVay, 2000; Porter, 1994; Solloway & Harris, 1999; Winn, 1997; and Young, 1998).
- To emphasize application of course concepts to the students' real-world situations (Ackerman, 1996; Carly & Palmquist; 1992; Duffy & Jonassen, 1993; Harasim, 1997; Moore & Kearsley, 1996; and Sponder, 1990).

- To increase opportunities for synchronous activities (Ackerman, 1996; Berge & Collins, 1995; Wegerif, 1998; and Winn, 1997).
- To set student expectations (Berge & Collins, 1995; McVay, 2000; Moore & Kearsley, 1996; Porter, 1994; and Sponder, 1990).

Implementation

After a one-term pilot of the course with 50 students (offered for one credit), the course became required of all students entering the online bachelor degree completion program. The redesigned orientation course took on a name change that increased its significance in the university's curriculum: the name was changed from "Online Learning Orientation" to "Advanced Learning Strategies." The course number was also reassigned from PF100 to PF280, reflecting the faculty and administration view that the content was more significant than a 100 level course. In addition, the course credit allocation was changed from one credit hour to two credit hours to reflect the amount of work and research required of the student during the course.

The course was taught completely online with no face-to-face interaction. It was designed with three learning modules taught over a six-week period with specific assignments and due dates each week. Below are brief descriptions of each module and the assessments that were required to meet objectives.

Brief Description

Module 1:

Students analyzed differences between distance learning and traditional learning and reflected on their academic responsibilities for the distance learning format. They also examined their reading and writing abilities—two critical skill sets for distance students. They practiced using e-mail to communicate with the instructor and other university staff, and learned how to use the online resources of the university library and the Internet

Assessments

Students completed three self-assessment checklists—a [computer skills survey](#), a [distance education suitability survey](#), and a [learning style survey](#).

Students chose a [research topic](#) regarding electronic communication and its challenges in the distance learning environment. They used online library and Internet resources for this paper.

Students wrote a [reflection paper](#) comparing and contrasting traditional course and online course characteristics and challenges. They included

to conduct research.

Module 2:

Students identified their learning styles and psychological types in order to build plans for adaptation to the online environment. They devised plans for adapting their learning style where needed and discussed how psychological type might play a part in collaborative projects. Students then began to work on such a project, as well as on building a community of their own on the Web.

perceptions of their strengths and weaknesses in the online format.

Students participated in a threaded discussion board regarding real-life, [problem-based scenarios](#), where they were asked to resolve the problem and analyze how their learning style and psychological type played a part in their response. Additionally, they posted comments on classmates' responses and shared what adaptations they might make in order to be successful in the distance learning environment.

Students completed an [electronic document editing assignment](#) with a partner using Microsoft Word's track changes and comments functions.

Module 3:

Students discovered the importance of social processes in learning, including one-on-one mentoring between student and instructor, one-to-many interactions with each other, and peer assistance. This learning module focused on ways to enhance collaboration and provide the beginnings of a networked learning community.

Students created and posted a [personal Web page](#) to share biographical and general interests information with classmates.

Students participated in a chat session. They discussed how collaboration and teamwork impact the learning and work environments, the importance of participating in a learning community, and the benefits and stumbling blocks to teamwork and collaboration.

Students engaged in [role-play simulations](#) in small teams of four. The simulations took place in chat rooms at scheduled times and required the students to solve a problem while maintaining their assigned

roles. The instructor reviewed chat transcripts and provided feedback.

Students submitted individual [course reflection papers](#), discussing what they learned during the class and how it would assist them in achieving further academic and work-related goals. These

papers included students' strategies for capitalizing on strengths and overcoming weaknesses in order to become successful distance learners.

Outcome Results

During the implementation of the study (six months spanning 1999-2000) a total of 392 students were enrolled in the orientation course, with 376 students completing the course. All students were pursuing an online bachelor's degree at the study institution. The following outcomes of the six-month study were identified:

- *Eighty-nine percent of students entering the online program demonstrated a significant increase in their technology skills following the completion of the orientation course.* Prior to this study, most student advisers and deans assumed that students who registered for online courses possessed the minimum prerequisite skills. This assumption proved to be inaccurate. Based on a computer skills survey administered at the onset of the orientation course, students entering the program rarely reflected mastery in even the minimal computer skills. The same survey administered at the conclusion of the course indicated a significant increase in their technology skills.
- *Seventy-four percent of students indicated an increase in independent, self-directed learning.* The self-assessment [suitability survey](#) and the student reflective essays provided good information about the students' perceptions. In fact, many students chose to go beyond the requirements of the essay and discussed how the course affected their personal growth. Specifically, students reported increased self-esteem, self-knowledge, study skills, and overall

confidence. Some students also shared anecdotal evidence of perceived life-changing or career-enhancing development based on what they learned in the orientation course.

- *Ninety-four percent of students were able to discern their preferred learning styles and to provide an accommodation plan, if needed, to be successful in the online environment.* The [learning style survey](#) and the student postings to the discussion board regarding learning style and psychological type helped students to take control of their own learning. Many students remarked that becoming aware of their learning style and psychological type was important in increasing their self-esteem and their confidence as online students.
- *Ninety-five percent of students demonstrated an ability to communicate effectively using Web-based tools.* Students participated in a variety of online communication methods including e-mail, bulletin board discussions, chat rooms, audio-conferencing, and whiteboard sessions. Through open-ended questions, students were encouraged to use these communication methods to clarify expectations and express their needs. The course instructors also reported, via a pass/fail grade for each activity, their observations of student capabilities in each of these areas.
- *The attrition rate of online students was reduced to an average of 15%, and re-enrollment increased to 90%.* An attrition and re-enrollment comparison was made on an individual student basis. The attrition rate in the orientation course was only 4.1%. Following completion of the course, 92% of the students registered for at least one online course in the next trimester. Of those who did register for one or more courses, their attrition rate varied significantly based on the number of online courses they took at one time. For example, attrition ranged from as low as 7.5% for those taking one online course to over 34% for those enrolled in three or more courses. Given that most Web-based students were older (the average age was 33), held full-time jobs, and typically had family commitments, it is possible that taking more than two courses per term created a significant burden. Perhaps students should be advised of these statistics and counseled to limit their enrollment to two courses per term. This would keep the attrition rate lower and help more students experience success in online course completion.

Conclusions and Recommendations

This study has engendered several recommendations for the use and design of online orientation courses. Foremost is that since online learning is new to most students, organizations would benefit from implementing a required student orientation course. The course should be taught entirely online in order to simulate the actual environment that students will encounter in Web-based course delivery. Moreover, according to student feedback, it is not enough for the orientation course to focus on the technology of the Web. It must also:

- Assist students in becoming aware of adult learning theory that they can apply to their context.
- Elicit self-awareness of personal suitability for the Web-based learning environment.
- Analyze and discuss adjustments students might make to increase success in their studies.
- Provide students many opportunities to engage in extensive Web-based interaction and communication with their instructors and their peers.
- Allow significant time for student reflection on this new environment.

Effective student and faculty preparation for the Web-based teaching and learning environment can make a significant impact on student success in their studies, thus increasing retention and curriculum completion.

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