Chapter 14

Technology Competencies:
Preparing Incoming Students in the Online Education Environment

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ABSTRACT

This chapter presents a case study on how incoming students are prepared to be technologically competent at the School of Library and Information Science at San Jose State University. A one credit hour, self-paced course is offered that covers online instructional technologies students will be using to receive their education, helpful online information resources for their coursework, and skills that are essential to being able to learn in an online educational environment. Students were positive about the value of the course and considered it important to their success in the program. The peer mentors participating in the course were also positive about their role in helping new students receive this preparation.

Note: Transcriptions of students' comments are entered verbatim.

INTRODUCTION

In Library and Information Science (LIS) education, information technology (IT) has been considered the most intense concept of the curriculum (Beheshti, 1999). Master's programs in LIS are incorporating more and more IT topics in their curricula in response to rapid technological development. Markey (2004) concluded that IT was the driving force behind the development and enhancement of LIS master's programs and figured prominently into the core curriculum of these programs.

LIS education is becoming more technically demanding than ever. Thus, it is important that

incoming students are adequately prepared not only for IT-related course content, but for intensive use of technology in course delivery, especially in online programs. However, incoming students usually have diverse backgrounds and competencies. In order for them to be technically prepared when they begin an LIS program, they should be informed of the program's technology expectations and receive assistance from the program in addressing any weakness in this area. Students without adequate preparation may find it difficult to handle the IT aspect of the curriculum or study in an online environment. Acknowledging this challenge in student preparedness, Kules and McDaniel (2010), conducted a content analysis of the 57 American Library Association-accredited LIS schools' requirements and expectations for incoming students in five areas: knowledge needed to successfully use technology in LIS programs, general computing skills, programming skills, software skills and Internet skills. Although they found little consistency between programs, they discovered that online programs generally had more expectations than face-to-face programs (F2F), indicating that such programs can be more technically challenging.

In addition to making the program's expectations known to students, assessment and remediation also play a critical role in incoming students' IT preparation. Kules and McDaniel (2010) identified a few forms of remedial support provided for students by LIS programs: IT workshops offered by either the SLIS or university generally, IT workshops through local schools, online tutorials, and required courses on IT. However, little evaluative research has been done to measure how effective these efforts are in preparing students to be technically competent and to succeed in their LIS education. To fill the gap in the literature, this chapter will present a case study that examines one LIS school's student IT preparation approach and its effectiveness, with the hope to contribute to the best practices in LIS student preparation, help other LIS schools make more informed deci-

sions when addressing similar issues, and make the educational experience more successful for students.

CASE STUDY

IT Focus in SJSU SLIS' Educational Environment and Curriculum

The School of Library and Information Science (SLIS) at San Jose State University (SJSU) is the largest LIS program in the world with over 2000 registered students. It has been entirely online since the Fall of 2009. Being entirely online means that all course delivery is completed electronically and there is no F2F component in the degree program. Students can enroll in the Masters of Library and Information Science (MLIS) program from anywhere in the world; location is no longer a constraint. A variety of technologies are used to support the program, including:

- **Learning management system (LMS):** An LMS is usually used to organize online courses. It serves as the course home and organizes the course materials and grades, as well as provides options for communication, such as messaging and discussion forums. The LMS used at SLIS during this study was *ANGEL*, an acronym for "A New Global Environment for Learning". However, since the Fall of 2011, *Desire2Learn*® has replaced it as the LMS for SLIS faculty and students.
- **Web conferencing system:** Web conferencing allows people to conduct live meetings, demonstrations, or presentations via the Internet. Educators can use it to hold live class sessions or office hours for geographically distributed students. At the time of this study SLIS used *Elluminate*® to meet the Web conferencing needs of faculty and students.

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