

7-2008

# The Effectiveness of Information Literacy Instruction at St. Cloud State University: A Lesson in Situated Cognition

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This starred paper submitted by Jennifer C. Hill in partial fulfillment of the requirements for the Degree of Master of Science at St. Cloud State University is hereby approved by the final evaluation committee.

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THE EFFECTIVENESS OF INFORMATION LITERACY INSTRUCTION AT  
ST. CLOUD STATE UNIVERSITY: A LESSON IN  
SITUATED COGNITION

by

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B. S., St. Cloud State University, 2006

A Starred Paper

Submitted to the Graduate Faculty

of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Master of Science

St. Cloud, Minnesota

July, 2008

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## Chapter 1

### INTRODUCTION

#### Introduction

In 2006 *The Chronicle of Higher Education* published an article describing a study completed by the Educational Testing Service (ETS). ETS estimated that only 13% of incoming freshman students were information literate. Studies by Mittermeyer (2005), Wassmann (2000), and the Intersegmental Committee of the Academic Senates of the California Community Colleges (2002) confirm this diagnosis. Information literacy speaks to the skills of finding, evaluating, and presenting information. Indeed, these skills are crucial in the information age. This paper sought to discover if the for-credit undergraduate information literacy courses (Information Media [IM] 104 and 204) at St. Cloud State University (SCSU) effectively provided students with information literacy skills that are being applied in subsequent courses and/or in the world outside of academia. In discovering the answer to this question, the context in which the instruction was delivered was considered. Learning theorists Jean Lave and Etienne Wenger (1991) developed the theory of situated cognition which suggests that learning is contextual and any knowledge or skills gained through instruction are dependent upon the environment in

which they are presented. Therefore, skills learned inside the classroom will not transfer to the outside world unless connections are drawn between the two environments (Anderson, Reder, & Herbert, 1996).

This chapter provides background information surrounding information literacy instruction for incoming freshmen, gives a problem statement and research questions that were attempted to be answered by conducting this study, outlines the significance of this research, and defines all necessary terms. A conclusion is given at the end which summarizes the chapter and outlines the remainder of the paper.

### Background

Information literacy, formerly referred to as library instruction or bibliographic instruction, was originally implemented in a few select private colleges such as Stanford, Princeton, and Johns Hopkins starting in the early 1900s. As higher education became more commonplace among the middle class, library instruction became a national trend occurring in many colleges and universities, both public and private (Pierard & Graves, 2002). The term 'information literacy' was originally introduced in 1974 by Paul Zurkowski, then president of the Information Industry Association. The term appeared again in 1989 when the American Library Association (ALA) published the *Presidential Committee on Information Literacy: Final Report* (Mittermeyer, 2005). This report was followed by ALA's *Information Power* which outlines information literacy standards for K-12 students. Similar standards for higher education were developed in 2000 through the Association of



College and Research Libraries' (ACRL) *Information Literacy Competency Standards for Higher Education* (Eisenberg, Lowe, & Spitzer, 2004).

Information literacy instruction at the college level continues today through faculty-librarian partnerships, Web-based tutorials, one-shot instruction sessions or workshops, for-credit courses (stand alone or as part of a learning community), and information literacy infused curriculum. However, entry level college students are found to be lacking in information literacy skills—they are challenged by the task of creating research questions and then effectively and efficiently answering them. To alleviate this problem, several accreditation agencies are requiring colleges and universities to meet certain information literacy standards such as those outlined by the ACRL. These accreditation agencies include but are not limited to: the Western Association of Schools and Colleges, the Middle States Commission on Higher Education, the New England Association of Schools and Colleges, the National Council for the Accreditation of Teacher Education, the American Psychological Association's Board of Educational Affairs, the American Chemical Society, the National Council of Teachers of English, and the International Reading Association. Outreach programs have also been launched by academic libraries to help educate college-bound high school students (Rockman, 2004).

#### Problem Statement and Research Questions

As previously stated in the introduction, being an information literate individual upon graduating from college has become increasingly important in light of the information age. A recent report from SCSU's Office of Institutional

Effectiveness (OIE) states that spring 2007 graduating (bachelor's degree) students found the skills of "using information technology and identifying and analyzing information" to be the self-reported top areas of academic growth that they experienced during their college careers (p. 12). How did this growth occur? With multiple methods of delivering information literacy instruction (online, one-shot instruction sessions, stand alone for-credit courses, integration into core courses or as part of a learning community, or a combination of these methods), it is difficult to determine what method is most effective.

This paper explored the effectiveness of St. Cloud State University's residential, for-credit, undergraduate information literacy courses. Did enrolling in an undergraduate information literacy course at SCSU contribute to graduates being information literate? More specifically, this paper aimed to address the following research questions through the use of a survey:

1. How did the skills and knowledge learned in an information literacy course transfer to subsequent or simultaneous academic courses, everyday life and the workplace?
2. How did students who enrolled in IM 104 or IM 204 feel about the knowledge and skills gained in the course, particularly if it contributed to their academic success in any way (higher grades, ease of finding credible sources of information for course assignments, etc.)?

3. What credible sources of scholarly information (typically those that are peer-reviewed and written by authorities in the field) were students able to identify and locate after taking an information literacy course?
4. How did students change their information seeking behaviors by looking for scholarly sources for information (electronic databases, Books in Print, credible Web sites, etc., instead of passively surfing the Internet) as a result of enrolling in an information literacy course?
5. Did students use the library and its resources more frequently as a result of taking an information literacy course?

#### Assumptions

The information gathered to answer these questions was done by surveying the students previously enrolled in IM 104/IM 204. In addition, the professors who taught IM 104 and IM 204 were also surveyed to determine if real world examples were given in class which allowed students to make connections between the content of the course and its application to subsequent or simultaneous courses, daily life, and the workplace. When conducting the surveys, the following assumptions were made: professors would accurately report on their instruction methods used during the duration of the course, and students would respond truthfully to all survey questions. It was also assumed that the majority students surveyed neither were IM majors or minors nor had been enrolled in both IM 104 and 204. (Note: This last assumption was difficult to determine as IM 104 or IM are required for both the major and the

minor. However, there are fewer people pursuing a major or minor compared to people who enroll in the course to fulfill other educational requirements.)

### Significance of the Study

There are several factors which made the study of information literacy instruction at SCSU important. Learning Resources and Technology Service's (LR&TS) information literacy coordinator, Cindy Gruwell, secured a place on the general education curriculum committee in an effort to help ensure that information literacy became a required outcome of the general education curriculum. At a minimum, she would like to see every undergraduate student enrolled in some type of information literacy course whether seated in a traditional classroom or via online tutorial (C. Gruwell, personal communication, August 30, 2007). The information gained from this study concerning the impact of information literacy instruction at SCSU may assist Ms. Gruwell and the general education committee in this endeavor in future years.

Incorporating information literacy into the general education curriculum is vital as instruction may contribute to higher grade point averages (GPA) and increased graduation rates. Qualitative research conducted by Lebbin (2005) documents students' self-reports of linking their information literacy instruction to higher grades in consecutive academic courses. Students reported receiving better grades on papers and assignments because of the high quality of information they were able to locate, research, and analyze. In addition to higher grades, Rushing and Poole (2002) found that students who worked in the library at Loyola University located in New Orleans,

Louisiana, had a graduation rate of 61% compared to the average total campus population of 31%-38%. Rushing and Poole suggest that knowledge and familiarity with the library, its resources, and staff members may be the factors that contributed to their student worker's higher retention and graduate rates.

Finally, information literacy is an important skill to further develop in the workplace after graduation. Rockman (2002) states that information literacy skills are vital skills in this world's current global and information-based economy. The marketplace is in need of employees who can make crucial decisions based on credible information. Furthermore, Goad (2002), author of *Information Literacy and Workplace Performance*, quotes Thomas Stewart (1997, 1998),

Having accurate, up-to-date information determines the difference between the rich and the poor in the Information Age. [This is because] intellectual material—knowledge, information, intellectual property, and experience can be used to create wealth. (p. 3)

Clearly, information literacy is an important skill, not only in the academic classroom, but also in today's workforce. Employees who are skilled will continue to succeed while those lacking information literacy skills will be left behind.

If the results of the proposed study are widely shared, the information gathered from this research project has the potential to affect a great number of people. They may include the approximately 250 students who enroll in IM 104 or 204 each semester, the instructors of the course, and the faculty who determine whether or not IM 104 or 204 become general education requirements. If an information literacy course were to become a requirement, an estimated 15,000 students would be receiving direct information literacy instruction at SCSU (OIE, 2006). Furthermore,

requiring students to take an information literacy course would not only change graduation requirements at SCSU, but could also potentially cost more for students who would have to pay for additional credits. Such a requirement could also prove cumbersome for transfer students as information media is not a field of study that is offered on every campus within the Minnesota State Colleges and Universities System (MNSCU).

### Definition of Terms

**Bibliographic Instruction:** “[Provides students] with the tools to use one single library effectively, to know about its catalogues and classification; these traditional skills are seldom transferable to another library or to another situation” (Niinikangas, 2001, n.p.). This term is used interchangeably with library instruction (Mittermeyer, 2005).

**Information Literacy:** “To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (American Library Association, 1989, n.p.). The term is used interchangeably with the term “information competency” in some pieces of literature (Moore, Brewster, Dorroh, & Moreau, 2002).

**Infused Curriculum:** “The process of seamlessly fitting content, [such as information literacy skills], into courses that are regularly offered. It is also the process of thematically weaving [information literacy] materials through an academic course” (Jacobson, 2007, n.p.).

**Learning Community:** Cohorts of students take similar courses together in a learning community. This assists students in seeing the relevance and coherence between courses, as well as fosters a sense of community and personal connection between peers and faculty members (Lebbin, 2005). Learning communities are often referred to as First Year Experience (FYE) programs because courses are usually taken during the first year of one's undergraduate college career (Germain, Jacobson, & Kaczor, 2000).

**“One-Shot” Instruction Sessions:** Library instruction given by request of an instructor. The instruction often lasts one class period and pertains to a particular assignment within a course (Moore, Brewster, Dorroh, & Moreau, 2002).

**Scholarly Information:** (As mentioned above) Credible sources of information, typically those that are peer-reviewed and written by authorities in the field. Scholarly sources tend to be lengthy and contain several documented citations.

**Situated Cognition:** Lave and Wenger's theory and its criticism (as cited by Altalib, 2002, p. 2) are described by the following:

Situated cognition is an important theory concerning the nature of learning. The theory consists of important implications for the design and development of classroom instruction. It is also a learning theory that emphasizes and promotes real and authentic learning. In a situated learning environment, learning of skills and knowledge occur in contexts that reflect how that knowledge is gained and applied in everyday situations. Nonetheless, some scholars and theorists still argue that the context in which learning takes place is secondary to the actual learning process. [The context] may be useful, [but] it remains very distinct and separate in respect to what is being learned.

**Web-Based Instruction:** “Self-paced, interactive, computer-based tutorials used to deliver information literacy instruction. Tutorials are sometimes used in class

in lieu of live instruction or are completed on the students' own time" (Jacobson & Mark, 2000, p. 259).

### Conclusion

This chapter provided an introduction, background, and an overview of a study that aimed to determine the effectiveness of SCSU's information literacy instruction courses. Lave and Wenger's theory of situated cognition was applied to determine if and how information literacy knowledge and skills gained in the college classroom was transferable to subsequent academic courses, the workplace, and everyday life. The study of information literacy instruction was significant as it may have an impact on SCSU's general education requirements, student achievement, retention/graduation rates, and alumni success in the workplace. Key terms were defined at the end of the chapter to assist in deciphering the language that will be used throughout the course of the paper.

Subsequent chapters in this research study include more information about the topic of information literacy instruction. A detailed literature review of the current research publications surrounding information literacy instruction is given in Chapter 2. Chapter 3 outlines the methodology and procedures used to survey students enrolled in IM 104 and IM 204 to determine how information literacy skills are being applied outside of those courses. It also outlines the process for surveying IM 104/204 instructors to determine the instructional methods that were used when teaching IM 104 and IM 204. The findings and results of the survey are detailed in Chapter 4.



Finally, Chapter 5 describes the conclusions of the survey and provides recommendations for further research.

## Chapter 2

### LITERATURE REVIEW

#### Introduction

It is my belief that every college should offer and require some kind of training in the use of the library. I also believe that this training should begin in the freshman year...I have found that the freshman provide the greatest problem with which the library is confronted" (English, 1926, p. 799)

Library instruction, and the information literacy instruction that followed, has a rich and interesting history. This review of literature followed the evolution of information literacy instruction from the early 1900s through the present day. Information used in this review was gathered from a variety of sources including electronic articles available from St. Cloud State University's (SCSU) Web site. Several databases were utilized on SCSU's site such as Academic Search Premier, ERIC, and Wilson Web. Key search terms used to search these databases included "information literacy," "freshmen," and "information literacy instruction." Many of the articles gathered from the databases were peer reviewed and cited in published books addressing the topic of information literacy. Information was gathered from books found within the Miller Center or borrowed via interlibrary loan from the College of St. Catherine Library in St. Paul, MN. Most of the books included were

recommended by the Association of College and Research Libraries (ACRL). Articles describing information literacy programs without addressing their academic impact were not included. In general, information surrounding K-12 information literacy instruction was not included as the focus of this study was higher education. Finally, many of the articles surrounding the effectiveness of information literacy instruction were qualitative in nature. Authors of such articles failed to mention their methodology within their research. Therefore, methodology and statistical results were not included in this review, with the exception of the section on Web-based instruction. The majority of this review focused on the various methods of offering information literacy instruction. Instructional methods have evolved from workshops and academic courses, to online tutorials. This review ends with a discussion of the evaluation of these methods as well as a detailed look at the theory this study is based upon, Lave and Wenger's theory of situated cognition.

#### History of Information Literacy Instruction

Library instruction, now often referred to as information literacy instruction, has a rich history that dates back to the early 1900s. As early as 1914, Amherst's college president, Alexander Meiklejohn, is credited for implementing one of the first library orientation courses so freshman could find credible sources of information, write papers, discuss current issues, and think critically. This concept was then implemented at Brown University. Prior to WWI, library orientation was common at many universities, but not necessarily library instruction, per se. Library orientation, at the time, usually included giving students a tour of the library and reassuring

freshman that librarians were available to assist students with their research (Pierard & Graves, 2002).

By the 1920s, librarians were starting to notice that freshman students were in need of more than a tour of the library in order to access and utilize its information. Formal instruction was needed to address student's academic needs. This knowledge led to several types of outreach efforts including teaching library skills as part of English composition courses, offering non-credit courses on library skills, and teaching about the library during freshman orientation. This trend continued until WWII, where the composition of the college student body changed significantly. Many students entered college after the war, creating large class sizes, which were getting too large for the librarian to serve. It was around this time that library instruction began to branch beyond the freshman year, and include specialized instruction for upper classmen. Basic technologies such as transparencies, film, and television were used to assist with instruction, starting in the 1950s (Pierard & Graves, 2002).

As briefly mentioned in Chapter 1, the term 'information literacy' first made its appearance in 1974 when Paul Zurkowski, president of the Information Industry Association, submitted a proposal to the National Commission on Libraries and Information Science (NCLIS) asking the organization to assist in creating an information literate population within the next decade (Eisenberg, Lowe, & Spitzer, 2004). The terms 'library instruction' and 'information literacy instruction' have been used somewhat interchangeably since that date.

The delivery of information literacy instruction has changed again today with the advent of the Information Age. Some traditional methods of offering information literacy instruction are still used at the university level such as library orientation, and direct instruction as part of an English composition course. However, library instruction is now being offered as part of freshman learning communities, and through Web-based instruction. What follows is a discussion of the literature that addresses each method.

#### Faculty Collaboration/Infusion

Librarians have collaborated with faculty members to incorporate information literacy skills into the college academic curriculum since the 1970s. This collaboration often took place so that library instruction could be tailored to fit specific research assignments given in the classroom (Rockman, 2004). This collaborative model is still used effectively today. Nugent and Meyers (2001) experimented with collaborating with natural and social science instructors to bring integrated information literacy instruction into the academic classroom through workshops that were fitted to match the curriculum. Three times throughout the course, students attended library instruction workshops that addressed locating and evaluating relevant information. Results of this collaborative endeavor were positive. Faculty members were observed discovering rich research materials that were relevant to their courses, were often seen accompanying their classes to the library, and assumed the role of co-teacher during the library instruction sessions. Students self-reported the ability to

obtain the information they needed and enjoyed learning in an environment that was co-instructed.

Students succeed academically when information literacy instruction is delivered collaboratively, but also when it is infused into academic curriculum. Although the sample size was arguably small, Morre, Brewster, Dorroh, and Moreau (2002) report finding a positive correlation between receiving library instruction of some type and a higher grade point average (GPA) the following semester. (To reach this conclusion, the authors compared grade point averages from one semester to another, comparing students who enrolled in information literacy courses, with those who did not enroll in such a course.) The authors of this study argue that universities need to develop and implement multiple ways of delivering information literacy instruction because every academic major has diverse needs. Some students may benefit from an academic course, such as English composition, paired with a library instruction course and others need information literacy infused into their academic curriculum, so students will not have to enroll in extraneous courses, thereby delaying their graduation. According to Lebbin (2005), one common major program of study that lends itself well to an infused information literate curriculum is nursing. The demographics of the average nursing student are very diverse. While some are solely full-time students, many have part-time or full-time jobs and families to care for on top of their responsibilities as a student. Infusing information literacy instruction into the nursing curriculum allowed for nursing students to receive needed information literacy instruction without having to enroll in additional courses, receive instruction

that was relevant to the nursing field, and learn about the location of information resources so they can be accessed quickly and efficiently when the need arises. Overall, collaboration and infusion are often seen as effective instructional methods because students are learning how to apply information literacy skills in context to what they are learning in class. This helps students to see the relevancy of the instruction they receive. In addition to collaboration and infusion, there are several other methods of face-to-face instructional methods that are effective for delivering information literacy instruction. These methods will be discussed in the next section.

#### Direct Instruction through Learning Communities

The first year of college can be a challenging time for the entry level student. There are many changes that require adaptation including time management, living away from home, academic rigor, and exposure to new social environments. While this can be an exciting time, Pierard and Graves (2002) have found that the freshman class is always the one that experiences the highest amount of attrition. To help combat this problem, first year experience programs have been developed at universities around the country to assist in supporting students during their first year of college. Such programs encourage students in their continuation and completion of a higher education. This trend originated with a traditional week long freshman course where new students attended a series of seminars orienting them to college life. Such courses have been in place at institutions like Boston University since 1888. Many institutions of higher learning still have this type of freshman orientation, but include

it as a complement to first year experience programs. First-year experience programs are academic programs within a university that allow students to become part of a learning community during the early part of their college careers. Learning communities are defined as “curriculum to link together courses or course work so that students find greater coherence in what they are learning as well as increased intellectual interaction with faculty and fellow students” (Lebbin, 2005, n.p.). Basically, students take a series of classes with a group of other students over the course of their first year of college. Often the instructors will remain the same for these courses during fall and spring semesters. This helps to build a sense of community and support, which ultimately works to reduce attrition. This type of programming grew in popularity around the 1980s, and librarians have been actively involved in these kinds of programs since their inception (Pierard & Graves, 2002).

For example, at the University of Utah, students have the opportunity to enroll in a freshman learning community called Learning Engagement Achievement Progress (LEAP). LEAP communities are based on interest, dormitory location, or major program of study. Faculty members of a major-based community work with academic librarians to incorporate 10 library instruction sessions into their courses during the length of a semester. Each library instruction session starts with 20 minutes of demonstration from a librarian followed by 20 minutes of participation and practice by the students in a computer lab. Sessions increase in difficulty as the semester progresses with topics ranging from research strategies and utilization of electronic databases to learning how the library is organized. At the end of the learning



community experience, students are offered the chance to take a library instruction course for academic credit. There are many positive results that were self-reported from faculty members whose students experienced this method of information literacy instruction including: increased ability to use the library and locate scholarly resources successfully, increased computer literacy, and the ability to tutor friends and family in how to use the resources found in the library (St. Clair, 2002). Similar programs and results have been documented by Lebbin (2005), Germain, Jacobson, and Kaczor (2000), Nugent and Myers (2001), Brown and Vigeland (2001), Hull and Lawton (2001), and most notably, Malone and Videon (2003).

#### Other Methods of Direct Instruction

In addition to offering direct information literacy instruction through learning communities, several universities offer information literacy instruction through two additional methods. These methods include: general education courses and workshops or on-demand sessions. On-demand instructional sessions are often referred to as “one-shot” instructional sessions. This section will explore these two methods in depth.

The effectiveness of stand-alone and/or general education information literacy courses for freshman had been met with mixed results. Sugarman and Mosby (2002) found that offering a stand-alone information literacy course to freshman was a challenge. Working as librarians at Georgia State University, each librarian taught a course that was not attached to a learning community, so the students reportedly had few things in common. Each student was also planning on majoring in a different

field so it was hard to make relevant connections to which the whole class could relate. By the end of the course, the authors observed that students could identify issues surrounding intellectual property, but ignored these concerns when writing papers. Several students were observed copying and pasting text from the Internet.

The issue of ignorance and disengagement is often cited in the literature. Students not only ignore issues such as copyright laws, but often report that learning how to use the library is boring. Cambridge (2006) sought to resolve this issue through the use of experiential learning. Cambridge redesigned his stand-alone, traditional lecture style information literacy course at George Mason University, Washington, D.C. to encourage student engagement and provide an opportunity for experiential learning. At the beginning of the semester, students have some traditional classroom time where principles of information literacy are read about and discussed. Students then work with the Center for Service and Leadership in Washington, D. C. to find a local non-profit organization that needs help. Students can choose to build a Web site for an organization, help immigrants access information in the public library, or research relevant information in order to assist a real client. Cambridge's endeavor with experiential learning helped to decontextualize information and build an atmosphere where students become engaged in becoming information literate.

Helping students understand the context and application of information skills is arguably one of the most challenging tasks of effective information literacy instruction. This may be one of the reasons why "one-shot" or "on-demand" library instruction sessions were found to be the most popular method of delivering

information literacy instruction according to a recent survey conducted by the ACRL (Malone & Videon, 2003). On-demand instruction sessions are simply that a faculty member typically asks an instructional librarian to visit an academic course for one class period and assist students in finding information that is relevant to an assignment given in that course. The advantages of this method are that students are given direct instruction that is tailored to their specific needs. Students can quickly see the immediate application of the information literacy instruction to their academic course work. This disadvantage to this method is that there is no time to go in-depth with any instruction. One-shot instruction sessions mimic library orientation in some ways; showing students how to find information, but not necessarily how to evaluate, or present the information in a new format (Moore, Brewster, Dorroh, & Moreau, 2002).

St. Cloud State University (SCSU) currently employs several of the techniques described in this paragraph. According to the 2006 annual report, 14 librarians taught 290 instructional sessions to 6,299 students. Approximately 80 of these sessions were given in conjunction with English 191, an analytical and rhetorical writing course. In addition, an estimated eight sections of stand-alone information literacy courses are offered for academic credit each semester as part of the general education curriculum. Some technology such as the use of St. Cloud State's library Web page, was utilized during various instructional sessions, but SCSU has yet to implement information literacy instruction that is facilitated 100% through Web based tutorials like those described in the next section (Learning Resources and Technology Services [LR&TS], 2006).

### Web-Based Instruction

As college class sizes continue to increase, librarians have begun to implement Web-based instruction to meet the needs of a growing student population. The results of the two studies discussed in this review indicate mixed results as to whether Web-based instruction has an impact on academic performance.

Germain, Jacobson, and Kaczor (2000) found that graduates at the University of Albany repeatedly reported the need to learn library research skills early on in their college careers. To solve this problem, the university developed library instruction courses for first-year students that consisted of two sessions: (1) an overview of information formats, how to use the online catalog, how to find information using an electronic database, and (2) how to evaluate information, especially Web-based resources. Students either enrolled in a traditional residential course, or were to complete the course via Web-tutorial using a campus computer. Students enrolled in either format were given a pre- and post-test to evaluate their skill levels. The test results revealed no difference in comprehension based on instructional format. However, the students that received some form of information literacy instruction prior to college tended to score higher on both tests. Based on the findings, the University of Albany has decided to offer all of their information literacy courses through a Web-based format. While this solution effectively alleviates the scarcity of library resources (time, space, and human personnel), it also limits human interaction between librarians and students. Further research needs to be conducted to determine

if Web-based tutorials limit the amount of reference questions asked at the desk because students will not have met a librarian face-to-face.

In 2008, a similar study to Germain, Jacobson, and Kaczor was completed by Kraemer, Lombardo, and Lepkowski, librarians at Oakland University in Ohio. Oakland University offers an information literacy course that is paired with a freshman writing course. Over the years, the student population has increased, but the amount of librarians has decreased. To alleviate this problem, librarians conducted a study to determine the impact of Web-based tutorials on the effectiveness of information literacy instruction. Students were enrolled in sections of information literacy courses in three formats: totally online, totally face-to-face, or a combination of online and face-to-face instruction known as the hybrid model. Students were given pre- and post-tests to determine what information was retained by the end of the course. Approximately 76.8% showed improvement in their overall test scores, with only slightly higher test scores from those that enrolled in a face-to-face course.

However, only 16% of those students in the totally online sections were satisfied with the quality of instruction received. It was therefore decided that Oakland University would adopt a hybrid model of information literacy instruction to insure some human contact between student and librarian, while still significantly reducing the amount of time each librarian physically spends with each class. One can quickly see that larger amounts of quantitative study have been conducted to determine the academic impact of Web-based instruction versus the various other

methods of delivery mentioned in this review. The next section discusses the topic of evaluating information literacy instruction.

### Evaluation Methods

Unfortunately, Rader (2002) author of a 30-year comprehensive review of the information literacy, correctly asserts that there has only been a slight amount of literature published in the last 3 decades which focuses on the effectiveness of information literacy instruction. Historically, information on this subject has been gathered through surveys. Ada Jeanette English, librarian at the New Jersey College for Women, developed a survey in 1926 to discover how area colleges were assisting their freshman in learning how to use the resources found in the library. The survey was mailed to 116 different colleges and received an 88% response rate.

Approximately 50% of the respondents reported no need to develop specialized instruction for freshman while the other half deemed it necessary to develop a separate library instruction course for freshmen to better equip them to find information during college and while in the workplace (Pierard & Graves, 2002).

In addition to the pre-and post tests described in the previous section, surveys are still widely used today to evaluate information literacy instruction. In 2003, Malone and Videon developed a survey to evaluate the effectiveness of first-year student library instruction programs on behalf of the ACRL. Surveys were sent to 292 institutions of higher learning and a 53% response rate was received. Questions were both quantitative and qualitative in nature. Questions focused on staffing, amount and format of courses that were offered, library skills taught during the instruction, and

class sizes. The survey found that the most popular method of delivering information literacy instruction was through a “one-shot” library instruction session. The most popular type of assignment given in an information literacy course is a bibliography listing resources on a given topic. Approximately 25% more faculty members than librarians are responsible for grading and evaluating student’s work that is assigned in an information literacy course. Finally, the average class size was found to be 16-25 students.

The librarians who conduct library instruction sessions (as apposed to teaching information literacy courses for credit) at St. Cloud State University also use surveys to evaluate the effectiveness of their information literacy instruction programs. At the end of every library instruction session, students are given a survey to evaluate the effectiveness of the session. The data are then “analyzed to improve the content and delivery of library instruction” (LR&TS, 2006, p. 18). The focus of this study is to determine if the information literacy skills presented though stand-alone information literacy courses are being transferred to subsequent courses, the workplace, and everyday life. One way to do this will be to survey students who have enrolled in an information literacy course and inquire how they have applied the skills they have gained in the course. All the questions on the survey will be created based upon Jean Lave’s and Etienne Wenger’s theory of situated cognition.

#### Background of Situated Cognition

In the early 1990s, Etienne Wenger and Jean Lave developed a theory called situated cognition, based on Piaget’s constructivist theory, which attempts to explain

how people learn. Situated cognition proposes that learning takes place within communities embedded in our social structure. Every person is involved in several communities in various contexts of life whether formal or informal. When a person first enters a community, norms and behaviors within the group are observed from a distance. Through observation and active participation, individuals develop expertise. The learning process is complete when the once “rookie-members” of the community have acquired the knowledge and skills necessary to mimic or replace seasoned members (Wenger, 2004). Lave and Wenger as cited in Anderson (1996) outline four principles that govern this process: “interaction must be done in complex, social environments, training in abstraction is of little use, knowledge does not transfer between tasks, and actions are grounded in the concrete situation of which they occur” (pp. 5-10). The research that has been conducted to develop and further explain these principles is discussed in the next section.

#### Research Surrounding Situated Cognition

There are several components that make up the theory of situated cognition. The first point is that learning interactions must be exchanged in complex social environments. Lave and Wenger (1991) cite research compiled by Jordan (1989) in their book *Situated Learning*. Jordan observed the training process of Yucatec midwives. Instead of using direct instruction to train the next generation of midwives, girls are immersed in the birthing process beginning at a young age. It is through their interaction with the culture of midwifery that girls acquire the knowledge and skills necessary to one day deliver a baby. While growing up, girls listen while experienced



midwives tell stories of birth. Once a woman has had her first child, she is allowed to attend a live birth and begins to administer prenatal care to expectant mothers. Eventually, a woman may decide to become a midwife and begins to work closely with a mentor observing and participating in the process. Few questions are exchanged, however, as the student-midwife is expected to rely on her previous experiences to deliver a child. Gradually, more and more responsibilities are shifted to the midwife allowing her to learn the entire process.

Anderson, Reder, and Herbert (1996) critique the notion that learning must take place in a complex social environment and assert that this context for learning is not always beneficial. Anderson et al. consider the tax accountant:

[It] is not always necessary to learn the tax code or how to use a calculator while interacting with a client. It is better to train independent parts of a task separately because fewer cognitive resources will then be required for performance, thereby reserving adequate capacity for learning. (p. 9)

Anderson cites several pieces of psychological research that point to the necessity for team members to develop skills individually, outside of context. For example, an orchestral violin player needs to practice alone to develop a skill set unique to the violin. Soccer players need to individually practice drills tailored to improve areas of weakness in order to be effective team players. It remains to be seen whether learning needs to take place within a social environment. However, Lave and Wenger feel that training an individual to complete a task to be used outside of such an environment has little impact on learning.

The next component of situated cognition is the idea that training in abstraction is of little use. Lave and Wenger (1991) state that even common knowledge only has

power in specific circumstances. It is difficult if not impossible to demonstrate even basic understanding if no context is given for application. Consider the acquisition and comprehension of language. Brown, Collins, and Duguid (1989) discuss the use of indexical words like next, now, here, et cetera, which are completely context dependent. Brown et al. further argue that all words, on some level, depend on context in order to extract their meaning. Thus, without context, words acquired or used in abstraction are often misused and people ultimately have trouble communicating. A study by Miller and Gildea (as cited in Brown et al., 1989) compared the accuracy of language acquired by children in authentic conversation versus learning from a dictionary. Children who acquired language from authentic conversation used words correctly while children learning from a dictionary tended to place words out of context making it difficult to prove they understood their meaning. "Me and my parents correlate, because without them I wouldn't be here. I was meticulous about falling off the cliff. Mrs. Morrow stimulated the soup" (p. 32).

Anderson et al. (1996) argue against this point. It is impossible to perceive all the ways in which knowledge can be applied. Therefore, it is not truly possible to teach something in context. Furthermore, attempting to do so is not always practical for the classroom. Selden and Selden (1997) tried to teach authentic problems in an advanced algebra class for high school students. Too much of the class period was spent collecting data making it difficult to thoroughly address the mathematical concepts involved in the problem within the time constraints of a single class period. Implications for mathematics are further discussed under the following heading.

The third component of situated cognition is that behavior is dependent upon the situation in which it is learned because knowledge does not transfer between tasks. Lave as cited in Anderson et al. (1996) studied home-makers in Orange County, California, who were able to make change accurately when visiting the local supermarket. However, these home-makers were unable to complete similar math problems when asked to do so in a mathematics classroom. Similarly, Carraher, Carraher, and Schliemann, also cited in Anderson et al., studied a similar phenomenon in Brazilian street children. These children were able to make change on the street, but failed to make change in the classroom. Why does mathematical behavior seem to be context dependent? Brown et al. (1989) argues that math skills learned in school are specific to the culture of the school, not the workplace. Indeed, Lave as cited in Brown et al. states that language used in word problems are only specific to language used in other word problems, not authentic mathematical language. Lave concludes that math taught in the classroom will have no effect on future job performance.

Anderson et al. (1996) believes that learning can transfer to the work world under certain circumstances. Singley and Anderson as cited in Anderson suggest that skills can transfer from one context to the next as long as they share similar concepts. A study was conducted on a group of employees learning how to use two different types of word processors. After mastering the first word processor, the employees learned how to use the second word processor quickly because it had similar structure to the first. Gick and Holyoak also cited in Anderson gave a group of people a hypothetical situation and asked them to apply it to a real-world situation. The group

was able to make a successful application as long as: they were asked to reflect on how to make the transfer, were given multiple examples of similar applications, and were cued when a part of the hypothetical situation might be relevant in the real world. The final section of this paper draws upon these transfer skills to discuss how situated cognition and communities of practice are utilized in the real world.

### Practicing Situated Cognition

Lave and Wenger's theory of situated cognition and communities of practice has implications for business and education fields. International Business Machines Corporation (IBM) has utilized communities of practice to increase continuity and "social capital" within their company. New employees are placed within communities upon being hired. Within these groups of professionals, new employees learn the structure of the organization, know who to ask specific questions, and can quickly direct customer inquiries to the appropriate associate. Working in communities has helped to expedite employee training, encourage networking opportunities, and increase organizational memory. Communities of practice are also used for collaboration among workers to develop innovative ideas for the company (Lesser & Storck, 2001). Rogoff, Turkkanis, and Bartlett (2001) observed the use of communities of practice in the elementary school setting. Parents of students are required to attend class at least 3 hours a week to participate in a learning community established in the classroom. Parents, teachers, and students work together to establish learning goals and create curriculum. Including parents in a classroom established learning community is associated with improving continuity when a teacher is absent, and

reinforcement of learning at home. Giving parents and students a voice in curriculum choice at school may encourage cooperation, increase motivation, and improve student achievement.

### Situated Cognition Summary

Even though the theory of situated cognition has been used successfully in the education and business sectors, there is still much conflict surrounding its validity. Experts argue whether learning should take place in social environments and if such an approach is practical. While all knowledge needs a context, there are times when learning independently appears to have value. In some instances, the transfer of learning does not occur, but theorists suggest learning can successfully transfer if students are given appropriate social cues. More research will have to be conducted on Lave and Wenger's theory of situated cognition and communities of practice in order to resolve the conflicts that exist in the literature. In the mean time, professionals are utilizing situated cognition to increase social capital in corporations and student success in the classroom.

### Conclusion

In summary, information literacy instruction has been explored since the early 1900s. There have been multiple methods of offering instruction since that time. Each method carries its own advantages and disadvantages. The literature stated that it is important to pick a method that best serves students, acknowledging that effective universities employ multiple methods. In addition to offering instruction, it was

crucial to evaluate such instruction for continual improvement. However, literature discussing the evaluation of such instruction was limited. This study aimed to conduct such an evaluation to determine the effectiveness of the transfer of learning of information literacy skills from the classroom to the outside world. In light of Lave and Wenger's theory, if students are not given examples of how information literacy is applied outside of the classroom, it was anticipated that students will have not transferred their learning to subsequent courses, the workplace, and daily life. In attempt to answer this question data was obtained using a survey. The succeeding chapter discusses in detail the methodology for this process.

## Chapter 3

### METHODOLOGY

#### Introduction

In deciding what type of research approach to choose for this topic, the researcher consulted Robert Yin's book, *Case Study Research: Design and Methods*. The author stated that a case study is an appropriate approach when " 'how' or 'why' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context" (1994, p. 1). Indeed, the focus of this study fit these three criteria. As discussed in Chapter 1, the researcher was interested in discovering how information literacy skills were being used in subsequent courses and real life and if such skills were not being used, the answer to the question, 'why not?' needed to be addressed. Furthermore, the researcher had no control over the information literacy instruction that was being given at St. Cloud State University (SCSU); this study in many ways was simply an observation and analysis of events. Finally, this study was examining the contemporary delivery of information literacy instruction, that is, the researcher was not taking a historical approach to the research process but rather, was interested in the effectiveness of information literacy instruction that had been delivered within the last academic year.

This chapter provides details regarding the methodology used to complete a case study that examined the effectiveness of information literacy instruction at SCSU. The chapter begins by describing the units of study followed by a description of the research approach and methodology that was employed. The pilot study used is addressed along with research procedures, statistics, data display, and data collection devices. The chapter ends with an explanation of limitations and delimitations followed by the chapter's summary.

### Units of Study

The units of study in this research project were the residential, for-credit, undergraduate information literacy courses offered through the Center for Information Media (CIM) during fall semester 2006 and spring semester 2007. The courses were labeled IM 104: Information Quest and IM 204: Research Strategies (this course had a diversity/multicultural gender minority emphasis). Both courses covered the same content; however, the 200-level course had a diversity focus. The students enrolled in the courses were mainly underclassmen—particularly freshmen and sophomores who were taking the course to fulfill a general education requirement. The courses tended to attract more females than males. This was not surprising as over 50% of SCSU students are female. Further, approximately two-thirds of the students enrolled in the courses were pre-nursing candidates who were completing IM 204 to fulfill a requirement to enter the nursing program at SCSU. All courses were taught within the James W. Miller Learning Resources Center in computer equipped classrooms. Faculty members instructing the courses either held a master's degree in information



media, library science, or a doctoral degree. During fall 2006 and spring 2007, eight sections of the course were offered each semester. Three sections were IM 104 and the remaining five were IM 204.

### Research Approach

As previously mentioned in the introduction, a case study was used to conduct this research project. In order to limit error and bias within the research results, both the instructors and the students associated with these courses were surveyed in order to gain multiple perspectives surrounding the issue. The method of gathering information from both students and their instructors was through a Web based survey tool called Survey Monkey. In order to use Survey Monkey, the researcher had to visit Survey Monkey's Web site at <http://www.surveymonkey.com/>. From the site's homepage, the researcher clicked on the "Join Now for Free" button and created an account by keying in a user name and password. Once the account was created, the researcher logged into the Web site and created the surveys.

Using the menu options across the top of the screen, the researcher clicked on "Create Survey" and chose to create a new survey from scratch. This survey was called the *Student Information Literacy Survey*. Once the survey was titled, the researcher was able to design the survey by keying in the questions which needed to be answered by students formerly enrolled in IM 104 and IM 204. Questions for students focused on how and if they have applied information literacy skills learned in the course to subsequent courses and real life. A copy of the student survey questions are listed in Appendix A.

Once the *Student Information Literacy Survey* was populated, the researcher created another survey for faculty members. This time, after clicking on the “Create Survey” button, the researcher chose to copy an existing survey and selected the *Student Information Literacy Survey* to copy information. This copy was titled *Faculty Information Literacy Survey*. Instead of designing the survey from scratch, the researcher was able to edit questions from the student survey and tailor them towards faculty members as much of the information was correlated. The second survey for instructors asked questions to determine if students were cued into to how information literacy skills could be transferred to the world outside of academia. A copy of the faculty survey questions are listed in Appendix B. Once both the surveys were created, the researcher clicked on a link at the top of the screen called “My Surveys” where both the *Student Information Literacy Survey and Faculty Information Literacy Survey* titles were displayed. To the right of the titles, there were three icons: design, collect, and analyze. The researcher clicked on collect icon for both surveys. The collect icon brought the user to a screen where there are three options of how a person could collect survey responses. The researcher chose the first option for both surveys which was “create a link to send in your own email message or to place on a webpage.” Clicking on this link generated a uniform resource locator (URL) Web address that could be copied and pasted into an e-mail for mass distribution. The URL for the faculty survey was

[http://www.surveymonkey.com/s.aspx?sm=jobJ0ko8ljOE2vf0CGRdiw\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=jobJ0ko8ljOE2vf0CGRdiw_3d_3d).

The URL for the student survey was

[http://www.surveymonkey.com/s.aspx?sm=XwFYXNraYJkwP007rDGjtA\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=XwFYXNraYJkwP007rDGjtA_3d_3d).

These links and their survey questions were tested in a pilot study before being sent to students and faculty. This pilot study is described in the next section.

### Pilot Study

Prior to e-mailing the survey to the students previously enrolled in IM 104 or IM 204, a pilot study was conducted to test the survey and its effectiveness. A graduate assistant not involved in this study in any way was sent links to both surveys in an e-mail account and asked to take both surveys to look for errors within questions, confusing language, and to make sure all buttons and links worked correctly. The assistant was timed so the researcher could get an accurate measure of how long the completion of the surveys would take. Upon completion, grammatical changes were made to questions where required, and it was determined that it would take 5 minutes or less to complete each survey. Once this information was gathered, the links to the surveys were ready to be sent out to students and faculty via e-mail to complete.

### Description of Research Procedures

Since the researcher was one of the first students within CIM to ever survey students who had previously enrolled in a course, the researcher had to ask the Office of Sponsored Programs (OSP) about how to obtain the e-mail addresses of the students previously enrolled in IM 104 and IM 204. The OSP informed the researcher

that student e-mail addresses had to be given from the Office of Records and Registration to the researcher's advisor. The names of the faculty members could be given directly from CIM's office manager to the researcher's advisor. The researcher could not be given any student e-mail addresses directly in order to protect students' privacy. E-mail addresses and names of faculty members could be revealed to the researcher as their names are a matter of public record. Additionally, the researcher was asked to complete and submit the Institutional Review Board (IRB) application and submit it to the OSP since human subjects were used in this research project.

Based on these directions, the researcher's advisor e-mailed the Office of Records and Registration and requested that the e-mail addresses of all the students enrolled in IM 104 and IM 204 during fall semester 2006 and spring 2007 be given to her for the purposes of her advisee's research project. The e-mail addresses were forwarded to her e-mail account in a Microsoft Excel Spreadsheet. At the same time, the IRB form was completed and sent to the OSP for expedited review. After 3 days had passed, the OPS informed the researcher that the research project was approved and that the researcher's advisor could go ahead and e-mail the survey link to the appropriate faculty and staff on the researcher's behalf.

The researcher's advisor composed a brief message to students explaining her advisee's research project and asked them to complete a survey related to information literacy by clicking on the link enclosed in the e-mail. Exactly 272 students had completed IM 104 or IM 204 during fall semester 2006 and fall semester 2007, but only 250 recipients can be e-mailed in one distribution list. Therefore, the advisor

copied half of the student e-mail addresses from the Excel Spreadsheet and pasted them in the blind copy blank, and sent out the e-mail. Then she repeated this process with the other half of the student e-mail address list. Of the 272 students who were e-mailed, only one e-mail was returned to the advisor's inbox stating that it was an invalid e-mail address. Students were given a week to respond the survey and then were sent a reminder e-mail at the end of the week giving those who had not yet responded to the survey another chance to participate in this research project. By the end of the response period 24% of the students had completed the survey.

After sending out the student survey e-mail, a similar e-mail message was composed for faculty members and included a link to the appropriate survey. While there were 16 unique sections of IM 104 and 204 that were offered during fall 2006 and spring 2007, there were only 12 unique faculty members who taught these courses as some faculty taught more than one section of the course during that time frame. Each faculty member's e-mail address was copied from an e-mail given to the advisor from the office manager and pasted into the blind copy field of the address bar of the appropriate e-mail address designed for faculty. Since some faculty who had taught IM 104 and IM 204 during fall 2006 and spring 2007 had since left the university, the office manager did not have their e-mail addresses. To alleviate this problem, the researcher and the advisor contacted colleagues who were in contact with these former faculty members and in the end, were able to find all the faculty e-mail addresses. As with the student survey, a reminder e-mail was sent out to faculty after a week to

encourage participation. Within the given response period 50% of the faculty had completed the survey.

#### Statistics, Data Collection Devices, and Data Display Devices

Once the faculty and students were finished responding to the survey, the researcher logged into Survey Monkey and once more clicked on “My Surveys” at the top of the screen. The collect icon for each survey was clicked on, and a screen comes up that has a status icon on the left side of the screen. The researcher clicked on the icon and then clicked on the button labeled “Stop Collecting Now.” This option closes the survey, disabling faculty and staff from responding to the survey once the survey is closed. Both the faculty and student surveys were closed after a specified date before the results were analyzed.

Once the survey was closed the researcher clicked on “My Surveys” and then chose the analyze icon. The analyze icon gives researchers access to the statistical analysis tools built into Survey Monkey. Statistical results are continuously updated as people respond to the survey and information is displayed in percentages. The pages containing the statistical results were printed and discussed between the researcher and a faculty member in order to determine their meaning and how the results should be displayed. It was determined that results should be expressed in terms of percentages, much like the how the information is displayed in Survey Monkey.

### Limitations/Delimitations

There were a few limitations and delimitations to this study that needed to be addressed. Limitations are discussed in this section followed by delimitations.

Limitations. The response rate to the survey may have been affected due to its method of distribution and time that it was distributed. Only one student had left SCSU between his or her enrollment in IM 104/204. This fact is known because only one e-mail was returned labeled undeliverable. However, students who are still enrolled in SCSU may not have checked their e-mail accounts frequently or may ignore a survey solicitation especially since it was sent out towards the end of the semester when students are busy finishing their courses. All of these factors contribute to the response rate. On the other hand, faculty members, particularly those who teach in an adjunct capacity, may not have responded to a solicitation from SCSU, especially if they were not contracted to work for the university during the semester that the research was conducted. If they did have a contact, they could have also been busy with grading and advisees as the end of the semester approached.

Delimitations. For the sake of feasibility, only students and faculty that were connected to IM 104/204 during fall semester 2006 and spring semester 2007 were included in this study. Additionally, only direct information literacy instruction that is offered through for-credit courses was examined. SCSU did offer alternative forms of information literacy instruction: integrated bibliographic instruction within courses upon request, workshops on a bibliographic citation tool called Ref Works, and

for-credit courses that were part of a first-year experience learning community. In the sake of interest and time, these vehicles of instruction were not explored in this study. Finally, the researcher made the assumption that the information that was gathered through means of the surveys portrayed an accurate perception of the effectiveness of the information literacy instruction that was provided during fall semester 2006 and spring semester 2007.

### Conclusion

In summary, the main unit of study for this research project was the effectiveness of St. Cloud State University's undergraduate information literacy courses. Data collected concerning these courses consisted of a two surveys—one for students and one for faculty. Once information was collected, it was analyzed using the statistical tools available through Survey Monkey. Following the analysis, it was determined that the results should be displayed using percentages. Chapter 4 of this paper details the results of this study and Chapter 5 offers a conclusion.



## Chapter 4

### RESULTS

#### Introduction

Chapter 3 detailed how students and faculty members were given separate surveys via Survey Monkey to assess the effectiveness of the instruction given in IM 104 and IM 204. Students were asked nine questions and faculty members were asked seven questions. There were two types of questions used in both surveys: multiple choice questions where respondents could check all options that applied to a specified scenario and rating scales where respondents could rank the strength of their feelings towards given situations regarding information literacy instruction. As mentioned previously, both surveys are included in appendices A and B. Of the 272 students solicited to respond to the survey, 65 responded giving the survey a response rate of nearly 24%. Twelve faculty members were solicited to take survey, and six responded yielding a response rate of 50%. What follows is a discussion of the student response results, faculty response results, and a comparison and contrast of the responses from both groups.

### Student Response Results

At the beginning of the survey, students were asked to choose the amount of time in terms of hours that they spent in the Miller Center Library before and after enrolling in IM 104 or IM 204. The majority of students, 74.2%, never or only spent 1 to 3 hours in the Miller Center prior to enrolling in an information literacy course. This pattern changed little after the course, as 61.3% reported never or only spending 1 to 3 hours in the Miller Center. This difference represents a 12.9% increase in the use of the Miller Center as a physical location to complete assignments as a result of information literacy instruction.

In the next two questions, students were asked to rank the first three sources of information they would consult when writing a paper about the Civil Rights Movement for a diversity course. Prior to enrolling in IM 104/204 the following three sources were consulted in descending order: Internet searching using Google, Yahoo etc. (49.2%), scholarly journal articles (18.5%), and books (12.3%). After completing IM 104/204, the order and type of sources to be consulted when completing the same project had changed dramatically. In descending order, the following top three sources would be consulted if the students were again asked to write a Civil Rights paper for a diversity course: scholarly journal articles (86.2%), books (60%), and specialized encyclopedias (27.7%). In contrast, only 20% of the respondents reported that they would still use an Internet search such as Google or Yahoo as their initial source of information when completing a research assignment.

The next three questions in the survey focused on how skills gained in IM 104/204 could be used in subsequent courses, in the workplace, and in daily life. An estimated 89.1% said they would use the knowledge and skills gained in the class to quickly find credible information for a paper, presentation, speech, daily assignment, or extra credit opportunity. Only 6.3% of respondents reported not using the skills gained in IM 104/204 in subsequent courses. Similarly, 67.7% reported that they would use the knowledge and skills gained in IM 104/204 during a summer job scenario to locate new information to create products such as reports, presentations, brochures, Web site content, or videos. Only 13.8% would not use any of the knowledge and skills gained in IM 104/204 in the workplace. Finally, students were asked how they have used the skills and knowledge gained in IM 104/204 in their daily life. The most popular application was to use the skills and knowledge to gather information about a topic they were curious about (64.1%). The second most popular application was to use the knowledge and skills gained to find alternative perspectives and/or more information about what is presented in the daily news (42.2%). The third most popular application was to use the knowledge and skills to make a well informed decision such as medical or financial (40.6%).

When answering another question on the survey, students were asked to rank their perception towards how the knowledge and skills gained in IM 104/204 have positively impacted their academic achievement. In general, the majority of students agreed or strongly agreed that the knowledge and skills gained in IM 104/204 had a positive impact on their academic career. The most notable results are as follows:

92.2% of respondents reported feeling less intimidated about using the library and the library's homepage because they knew where to find information. Approximately 86.2% of respondents reported that they could find information more quickly, and this had made completing assignments easier. Ultimately 83.1% of respondents believed they have received a higher grade on some of their assignments given in subsequent or simultaneous courses such as papers, projects, and/or presentations because they had used more credible sources of information that they learned about in class. Overall, the minority of students, only 24.6%, agree with the statement that the knowledge and skills gained in IM 104 and IM 204 had no impact on their academic achievement during their college career.

As the survey concluded, students were asked what they would do to evaluate the information found on a Web site. Only 3.1% reported that they would do no evaluation because of limited time. However, 92.3% would check to see if the information presented on the site is consistent with information found in other credible sources. The majority also reported that they would check to see if the author cited other sources of information (78.5%) and that they would also check to see if an author or date is listed on the Web page (75.4%). Finally, students were asked how likely they would be to recommend either IM 104/204 to another student. On a scale of 1 to 10 where 1 represented not at all likely and 10 represented very likely, 49.2% rated their likeliness to recommend this course at an 8 or above.

### Faculty Response Results

Faculty members were initially asked to indicate whether they instructed IM 104, IM 204, or both courses. Of the six individuals who responded, 50% taught IM 104 and 100% taught IM 204. The next question on the survey asked the faculty members to rate the emphasis they placed on certain information literacy skills that were presented in IM 104 or IM 204. The skills that 100% of the instructors addressed in their courses either much of the time or some time included: how to search and critically evaluate information found on Web sites, how to navigate the LR&TS library Web page in order to search for scholarly journal articles, how to detect bias within sources of information, and how to develop a research question or strategy. The skills that instructors spent the least amount of time on included how to use an electronic bibliographic tool such as RefWorks, and how to compare sources in order to choose the most credible source of information.

The third question on the survey asked respondents to indicate the instructional methods that were employed during the course which help students make the connection between how information literacy skills can be used in their future place of employment and in daily life. All of respondents indicated that they provided real world examples in classroom discussions and course materials which indicated how information literacy skills could be used outside of academia. None of the instructors surveyed required students to engage in a service learning project where they could apply their information literacy skills in a real world setting. No instructors invited guest speakers to share how information literacy skills were valued by employers, or

provided authentic activities such as taste tests so students could determine the role of bias and erroneous information in a real life situation.

The next question asked instructors to rate how well students generally mastered certain information literacy skills while enrolled in IM 104 or IM 204. The most common skill that 83.3% of respondents felt that students could now accomplish easily was locating a scholarly journal article. Approximately 66.7% of respondents felt that students could easily locate information in order to become successful in another academic course. Only 33.3% of instructors felt that students could easily locate information when needed in daily life situations in order to make decisions (medical, financial, political, etc.) after completing IM 104 or IM 204.

Working with the idea that information literacy instruction may have a positive impact on student's academic achievement during their college career, faculty members were asked to rate their level of agreement with several possible positive outcomes of information literacy instruction. All respondents either strongly agreed or agreed with five positive outcomes of information literacy instruction. These outcomes included: students receiving higher grades on assignments because they were able to access credible information, students spending less time revising assignments because credible information was used in their initial drafts, and students being less intimidated about using the library and its homepage because they knew where to find information as a result of enrolling in an information literacy course. The other two outcomes included students being able to find information at a quicker pace, and students no longer dreading the creation of a bibliography or a works cited

page because they had learned how to format citations using an approved citation style.

There were only three outcomes that did not receive 100% agreement from all respondents. These outcomes involved students knowing how to use electronic bibliographic tools, students no longer feeling intimidated to talk to a reference librarian because they had formed a relationship with one in class, and students having the opportunity to share what they had learned in class with other people. Even though the respondents were not in agreement that these last three outcomes may have occurred due to information literacy instruction, all respondents either disagreed or strongly disagreed that the skills and knowledge learned in either IM 104 or IM 204 had no impact on student's academic achievement.

Towards the end of the survey, faculty members were asked to select from a list that outlined possible information seeking behaviors they had seen evolve in their students throughout the course of the semester. All respondents reported that students utilized a wider variety of resources that they were unaware of before enrolling in IM 104 or 204 and students have stopped using Wikipedia as a sole source of information. Approximately 83.3% of respondents believed that students were able to apply the rules of a citation style such as MLA or APA in order to create a paper and/or bibliography that contained fewer errors than when the course began. Half of the respondents believed that students spent less time looking for information because they had received training in finding credible information in an efficient manner as a result of taking the course, and that fewer students were caught plagiarizing

information by copying and pasting information from the Internet into their assignments. Only one respondent felt that fewer complaints were heard regarding the creation of a bibliographic page as a result of students learning how to use an electronic bibliographic tool such as Ref Works.

The last question on the survey asked instructors to rate how generally likely they thought a student would recommend either IM 104 or 204 to another student. On a scale from 1 to 10 with 1 representing "not at all likely" and 10 representing "very likely," scores ranged from 5 to 10, with the majority of respondents, 33.3% answering this question with a score of an 8.

#### A Comparison of Results

Some of the questions asked of the faculty and students overlapped on the survey. The purpose of asking both groups similar questions was to determine if the faculty's perception of their student's experiences and reports from the students themselves were compatible. Both groups were asked to identify which sources students used to find credible information after enrolling in IM 104 or 204. Students reported that they would first look in scholarly journal articles, then Books in Print, followed by either an advanced search on the Internet or Google Scholar. These findings are consistent with 83.3% of faculty members reporting that students could easily find a scholarly journal article after enrolling in the course, and 100% of faculty members reporting that students demonstrated the ability to find a wider number of resources that they did not know about before the course.



When students were asked how they would apply the information literacy skills they had acquired from IM 104 or 204 in hypothetical real world scenarios, the majority of respondents reported that they would use the skills to either find information for a class assignment or project assigned by their employer. Further, when asked if students had actually applied any of the skills they had learned in the course to real life, the majority of respondents answered in the affirmative. Approximately 64.1% reported using information literacy skills to gain information about a topic they were curious about. A lesser percentage, 42.2% and 40.6%, respectively, reported using information literacy skills to gain a different perspective about something that had occurred on the news or to make a well informed decision, perhaps in the financial or medical arena.

The student's ability to apply information literacy skills to subsequent courses, the workplace, and daily life is consistent with 100% of the instructor's reporting to have provided real world examples of how information literacy skills are used in the real world when teaching the course whether through discussion or via course materials. An estimated 83.3% of instructors also reported to have discussed how information literacy skills can be employed when making a major life decision.

Perhaps the best results to compare are those obtained when students were asked to rate how the skills gained in IM 104 or 204 affected their academic careers and faculty members were asked to rate how they perceived the skills that the students gained in IM 104 or 204 affected the student's academic careers. The student's top three points of impact of information literacy on their academic careers included:

students feeling less intimidated about using the library and its homepage to find information (92.3%), students finding information at a faster rate because they had learned to find credible information in an efficient manner (86.2%), and students believed they had received higher grades on assignments in subsequent or simultaneous courses because of the information sources they had learned about in class (83.1%). By contrast, 100% of faculty members chose three slightly different skills that they perceived students as gaining in order to become academically successful. Their top three skills included: students receiving a higher grade on assignments because students used credible sources of information that they learned about in class, students feeling less intimidated about using the library and its homepage (this skill crosses over to what the student's reported), and students no longer dreading the creation of bibliographies because they have learned how to create them electronically. Further, there appears to be a small discrepancy among the two groups as to whether the skills gained in IM 104 or 204 had any impact of one's academic performance. Approximately 25% of the students surveyed agreed with the statement that the skills learned in IM 104 and 204 did not have a positive impact on their academic career (as opposed to 75% of respondents who felt there was an impact). An additional 15.4% were not sure if the skills gained in IM 104 or 204 had had an impact. By contrast, 100% of the faculty members surveyed either disagreed or strongly disagreed with the statement that IM 104 or 204 had no positive impact on their student's academic careers. None of the faculty members surveyed was unsure of their feelings towards this outcome.

The final question whose results can be compared between the two groups are the students' rating of how generally likely they are to recommend either IM 104 or IM 204 to another against the faculty's perception of how likely their students would recommend the course(s) to another student. On a scale from 1 to 10 with 1 being not at all likely and 10 being very likely, about half of the students rated this question at an 8 or above. These results are consistent with the faculty's responses as 50% also scored this question at an 8 or above using the same scale.

### Conclusion

In summary, this chapter provided an overview of the results that were obtained from faculty members who taught, and students who were enrolled in either IM 104 or IM 204 during fall semester 2006 or spring semester 2007. In many cases, students and faculty members were asked similar questions about their experiences so the results could be compared. While this chapter only provided the results of the survey, the next chapter will draw some conclusions about these results as well as provide recommendations for further research.

## Chapter 5

### CONCLUSIONS

#### Introduction

The final chapter of this study provides speculations and draws conclusions regarding the results of the survey. Comments are based upon information about St. Cloud State University, the review of literature examined previously in Chapter 2, and Lave and Wenger's theory of situated cognition. This study's original research questions will be revisited to determine if each question was addressed through the survey. This chapter will conclude by providing recommendations for further research, and possible plans for sharing this study's results.

#### Response Rate

The survey outlined in this study had a somewhat low response rate with approximately 24% of students and 50% of faculty members responding, respectively. There were several possible reasons for this low response rate. One of the reasons is that no incentive was given for completing the survey. Participation was completely voluntary, so respondents could simply choose not to respond without incurring a penalty or missing an opportunity to win a prize. Moreover, the survey was sent out near the end of the semester when finals week was about to begin. This is probably

one of the busiest times of the year for faculty and students alike; ignoring any non-mandatory task is somewhat essential in order to complete the semester successfully. Surprisingly, out of the 272 student e-mails and 12 faculty e-mails that were sent out, only one was returned as undeliverable. This was surprising as the students could have graduated or transferred schools between the time they enrolled in IM 104 or IM 204 last year and the time the survey was sent out this year. However, attrition did not seem to be a factor in the response rate. This is consistent with a previous study suggesting that students who enrolled in an information literacy course tended to stay at St. Cloud State for the duration of their careers and ultimately graduate (personal communication, Chris Inkster, May 2, 2008). Of the 12 faculty members that were surveyed, five were adjunct faculty and two others no longer work at St. Cloud State University. Since over half of those surveyed are no longer or only temporarily affiliated with the university, the fact that at least half did respond was impressive.

#### Comments on Survey Results

Several of the results gained from the survey were also impressive. The information gathered helped to answer many of the research questions that were outlined in Chapter 1. The correlations between the research questions and their answers are discussed in this section. Ultimately the survey was successful in addressing this study's research inquires.

*How do the skills and knowledge learned in an information literacy course transfer to subsequent or simultaneous academic courses, everyday life, and the workplace?* The survey revealed that students most commonly use information

literacy skills to find information on a topic they are curious about (64.1%) in their daily life. Almost 68% would use information literacy skills in the workplace to gather information in order to produce items such as reports, presentations, Web site content, etc. Finally, the majority of students, 89.1% reported that they would use information literacy skills in academia to gather information for assignments and extra credit opportunities. When comparing survey results from both faculty members and students, it was determined that there may be a relationship between faculty members providing real world examples of the application of information literacy skills and the students ability to use these skills within academia and beyond. As seen above, students were able to transfer the skills learned in these courses to daily life, the workplace, and academia. This ability to transfer skills may be related to the fact that 100% of instructors provided real world examples of applications when instructing the course. The fact that students are able to transfer skills from one classroom setting to another is consistent with Lave and Wenger's theory that learned is in fact situated. However, the student's ability to articulate how the skills can be used outside of the classroom seems to suggest that learning can be applied outside of its original contexts if students are given the appropriate cues by their instructors.

*How do students who enrolled in IM 104 or IM 204 feel about the knowledge and skills gained in the course, particularly if it contributed to their academic success in any way (higher grades, ease of finding credible sources of information for course assignments, etc.)?* It is fairly clear from the results of both the faculty and student surveys that both parties felt that the knowledge and skills gained had a positive

impact on the academic career of the student. The majority of respondents from both surveys (100% of faculty and 83% of students) felt that students received higher grades in subsequent and simultaneous courses because they were able to use better sources of information for their assignments that were discovered in class. This was surprising to the researcher because little quantitative research has been done to determine if information literacy instruction does result in higher grades. Further, literature reviewed in Chapter 2 mentioned that sometimes students perceive information literacy instruction as boring albeit important. It is surprising then, that the majority of students report having a positive experience. However, only one quarter of the students responded to the survey; it is feasible that those who completed the survey had a positive connection with enrolling in IM 104 or IM 204 and those who had a negative or neutral experience chose not to respond.

*What credible sources of scholarly information (typically those that are peer-reviewed and written by authorities in the field) are students able to identify and locate after taking an information literacy course?* All of the faculty members surveyed either felt that students could easily or probably locate a scholarly journal article as a result of taking IM 104/204, and develop an awareness of how to use a variety of sources to find information. The faculty members were also in agreement that students utilized a wider variety of resources than they were aware of before taking IM 104 or 204 and that students had stopped referring to Wikipedia as a sole source of information. In light of this information, it was not surprising to discover that prior to enrolling in IM 104/204 the top information source for students was an

Internet Search using Google or Yahoo, and after enrolling in a course, the most popular information source used by students was scholarly journal articles.

*How do students change their information seeking behaviors by looking for scholarly sources of information (electronic databases, books in print, credible Web sites etc. instead of passively surfing the Internet) as a result of enrolling in an information literacy course?* In addition to students preferring scholarly journal articles instead of using an Internet search engine to find their information, students reported to have changed the way they evaluated information found from electronic sources. When students were asked how they would evaluate controversial information found on the Web for a class assignment, 92.3% said they would check to see if the information presented on the site was consistent with information found in other credible sources, 78% of students would check for citations, and 75% would check to see if an author and date are listed on the Web page. Only 3% reported that they would do no evaluation in order to save time. The last percentage surprised the researcher because students are not frequently observed evaluating information prior to use within the Miller Center. In addition, many students work during their college careers. In 2007, the Minnesota Office of Higher Education Web site estimated that approximately 43% of all undergraduates in the state are financially independent with 27% working full time while attending college. An estimated 23% care for their children while pursuing a degree. When pressed for time, one would assume that evaluating a Web site may become a step that gets skipped, but this survey surprisingly said otherwise.



*How do students use the library and its resources more frequently as a result of taking an information literacy course?* It is somewhat challenging to determine the complete impact that information literacy instruction has on library use. However, there was an estimated 13% increase in library use reported from the students after completing either IM 104 or IM 204. The majority of students, over 90%, reported feeling less intimidated about using the library and its Web page because they had become familiar with how to find resources as a result of their information literacy course. It is somewhat surprising then to learn that about 40% of students disagreed, strongly disagreed, or were unsure whether they no longer felt intimidated to ask a reference librarian a question after taking a course. This may be due partially to the fact that not all instructors work at the reference desk, so the chances that a student would be able to ask their teacher a reference question at the desk would be limited. Clearly, the student-librarian relationship needs further research, as well as many other aspects of information literacy instruction that are outlined in the next section.

#### Plans for Further Research

While the survey described in this study did provide some insight into the effectiveness of information literacy instruction, more work should be done to further understand the issues and perspectives associated with information literacy instruction.

Pilot study. If this study was to be recreated, a more detailed pilot study would be conducted prior to e-mailing the survey to the students previously enrolled in IM 104 or IM 204 to further evaluate the survey and its effectiveness. Approximately five

first or second year students would be asked to take the survey. They would be timed so the researcher could get an accurate measure of how long the completion of the survey will take. Upon completion, these students would be asked about the questions on the survey to determine if any of the language used was unclear or misleading. These students would also be given the opportunity to offer their input regarding questions that should be changed, omitted, or added.

It would also be appropriate to hold an informal focus group with a few students who are near graduation. Talking to them about information literacy, or lack thereof, would provide the researcher with a greater perspective regarding which questions would be asked on the survey. Furthermore, comments provided by the focus group may serve to illuminate some of the results of the study by providing some clues as to why information literacy skills may or may not be transferring to subsequent courses and daily life throughout one's undergraduate career at SCSU.

Triangulation. While the study outlined in this paper only employed one method of gathering data via survey, it would be advantageous to employ at least three methods of data collection (also referred to as triangulation) to gain a greater perspective on the issue(s) surrounding information literacy instruction. Students would still be surveyed as in this study, but faculty members would instead be interviewed, and course materials would be examined.

Instructors of each section of IM 104 and 204 would be interviewed and asked about their instructional approach to the course. They would be asked to describe the connections they made between the information literacy skills taught in the classroom

and their applications in the real world. All interviews would be recorded, transcribed, and analyzed. Finally, shared instructional materials and course syllabi would be analyzed to see if they contain any information that would help students make connections between the information literacy skills they obtained in class and their real world applications. In addition to a more robust approach to researching information literacy instruction, a more detailed statistical analysis could also be used to further understand the survey, interview, and document analysis results. A quantitative analysis software tool, such as N4 QSR, would be used to help categorize and analyze interview data, and the results would be displayed in a table and a graph. Finally, the document analysis would also involve coding and a frequency count to analyze their contents. The results could also be displayed in a third table and graph.

In addition to these plans, research would be conducted to explore the effectiveness of other methods of delivery of information literacy instruction. Some of these other methods might include delivering “one-shot” information literacy instruction sessions, infusing information literacy into a specified curriculum, integrating information literacy into learning communities, or including information literacy instruction as part of new student orientation at St. Cloud State University. A similar research approach of dual surveys could be used to examine these delivery methods or triangulation could also be employed to gain more in-depth information. After these studies are completed results could be shared with the information literacy task force in order to improve instruction.

### Sharing Research Results

While more research does need to take place in order to further understand both the academic and real world impact of information literacy, the results of this study may be shared with others to better understand and help to improve the delivery of information literacy instruction at St. Cloud State University. An executive summary of this study may be written which summarizes the results of both surveys and given to the members of SCSU's information literacy task force to be reviewed and considered. Additionally, the contents of this paper may be revised and submitted for publication to a relevant scholarly journal. Finally, the findings of this study may be summarized and presented to an audience of librarians at an upcoming Academic and Research Libraries Division conference. It is important to share the results of this study so that information literacy instruction can be understood and improved, not only at SCSU, but also in other parts of the region.

### Conclusion

The process of completing this study has been long and rewarding. Taking time to articulate research questions and conduct a deep review of literature helped to create two accurate surveys that reflected possible issues, outcomes, and scenarios associated with the successful delivery of information literacy instruction. Survey Monkey proved to be a valuable and convenient vehicle to conduct a large survey as it generated a simple Web-based link which allowed respondents to quickly provide information. The statistics that were automatically generated were easy to understand and provided some clear insight into the effectiveness of IM 104 and 204. The

researcher would definitely use Survey Monkey again in future research projects. It was a laborious process to gain the approval for the survey from the IRB, but once it was completed, surveys were sent successfully. The response rate was lower than originally anticipated, so next time the researcher will send out a survey link earlier in the semester to avoid competition with final examinations. It was surprising and encouraging to see that information literacy instruction at SCSU was both effective and transferable to other aspects of life. This result seems to suggest that perhaps not all learning is situated as Lave and Wenger suggest. As the results of this study begin to be shared, it is hoped that information literacy instruction, such as IM 104 or IM 204, become an integral part of general education at SCSU.

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APPENDICES

APPENDIX A

Student Information Literacy Survey

## Student Information Literacy Survey

1. How many hours do you visit the Miller Center to look for information on a weekly basis? (Circle the appropriate range of hours.)

1 Prior to enrolling in IM 104 or IM 204	Never	1-3	4-6	7-10	11+
2 After completing IM 104 or IM 204	Never	1-3	4-6	7-10	11+

2. Suppose you needed to find information about the Civil Rights Movement in the United States in order to write a paper for a diversity course. Prior to completing IM 104 or IM 204, where would you probably have looked first to find that information? (Choose only one source)

Books
Newspapers
Popular Magazines
Printed Scholarly Journal Articles
Specialized Encyclopedias
General Encyclopedias (but NOT Wikipedia)
Wikipedia
Internet search using Yahoo, Google etc.
Advanced on the Internet such as Google or any other search engine
Google Scholar

3. Suppose again that you need to find information about the Civil Rights Movement in the United States in order to write a short paper for a diversity course. The professor requires using three different sources of information. Where would you now look for sources of information after completing IM 104 or IM 204? (Check the three best sources that you would choose to complete this assignment.)



Books
Newspapers
Popular Magazines
Printed Scholarly Journal Articles
Specialized Encyclopedias
General Encyclopedias (but NOT Wikipedia)
Wikipedia
Internet search using Yahoo, Google etc.
Advanced on the Internet such as Google or any other search engine
Google Scholar

4. Suppose you need to complete the English and communication studies general education courses after enrolling in IM 104 or IM 204. How would you use the knowledge and skills you gained in IM 104 or IM 204 to complete the course's requirements that require research? (Check all that apply.)

I would use the knowledge and skills gained in the class to quickly find information for a paper, presentation, speech, daily assignment, or extra credit opportunity
I would use a new tool that I learned about in class called RefWorks to create a bibliography
I have NOT used any skills or knowledge from IM 104 or IM 204 in subsequent courses.

5. Consider the following scenario: Your summer job in between your first and second year of college is to work for your local mayor to promote his or her campaign. How would you use the skills and knowledge learned in IM 104 or IM 204 to produce promotional materials for your mayor? (Check all that apply.)

I would use the knowledge and skills gained in class to locate new information such as a report, presentation, brochure, Web site content or video.
I would use the knowledge and skills gained in class to make well informed decisions (examples might be what issues to highlight, what population to campaign in front of, or how much money to spend etc.)
I would NOT use any of the knowledge or skills from IM 104 or IM 204 in the workplace.

6. How have you used any of the skills and knowledge learned in IM 104 or IM 204 in your daily life? (Check all that apply.)

I have used the knowledge and skills gained in the class to find alternative perspectives and/or more information about what is presented in the daily news.
I have used the knowledge and skills gained in the class to gather information to help me decide how to vote on a specific issue or candidate.
I have used the knowledge and skills gained in the class to gather more information about a topic that I am curious about.
I have used the knowledge and skills gained in the class to make a well informed decision (examples might be financial, medical etc.)
I have NOT used any of the skills and knowledge from IM 104 or IM 204 in my daily life.

7. Please rate how do you feel the knowledge and skills you gained in IM 104 or IM 204 has positively impacted your academic achievement and/or college career.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
I believe I have received a higher grade on some of my assignments given in subsequent/simultaneous courses (papers, projects, presentations) because I have used more credible sources of information that I learned about in class.					
I have spent less time revising assignments in subsequent courses (papers, projects, presentations) because I can locate more credible sources of information that I learned about in class.					

I am less intimidated about using the library and the library's homepage because I know where to find information as a result of taking IM 104 or IM 204.					
I can find information more quickly as a result of taking IM 104 or IM 204 and this has made completing assignments easier.					
I no longer dread creating bibliographies or works cited pages because I now understand what they are.					
I no longer dread creating bibliographies or works cited pages because I use RefWorks.					
I no longer feel intimidated to ask a reference librarian a question because a librarian instructed my course.					
After completing IM 104 or IM 204, I have shared some of my knowledge and skills with someone I know.					
I believe the knowledge and skills gained from IM 104 or IM 204 has NOT had a positive impact on my academic achievement or my college career.					

8. Suppose you need to find information about a controversial topic for a debate you will be having in a communications studies course. One of your main sources of information for the debate will be the World Wide Web. When evaluating the information you find on the topic from a Web site would you... (Check all that apply.)

Check to see if the author cites other sources of information?
Check to see if the information presented on the site is consistent with information found in other credible sources?
Check to see if an author and date are listed?
Do NO evaluation because of limited time?
Do NO evaluation because you feel you do not have the knowledge and skills necessary to readily detect and differentiate between bias, perspective, and error found in sources as a result of enrolling in IM 104 or IM 204?

9. Now that you are further along in your college career, how likely are you to recommend enrolling in IM 104 or IM 204 to another student?

Not at all likely					Very likely				
1	2	3	4	5	6	7	8	9	10

APPENDIX B

Faculty Information Literacy Survey

## Faculty Information Literacy Survey

1. Which of the following courses do you teach? (Check all that apply.)

IM 104
IM 204

2. Please rate the amount of emphasis you place on the following information literacy skills taught in your IM 104 and/or IM 204 courses in order to prepare students to meet the research demands required in subsequent academic courses.

	Spend a lot of time on this	Spend some time on this	Spend a little time on this	I don't teach this skill
How to search and critically evaluate information found on Web sites in order to determine if the information is credible.				
How to find information in print within the Miller Center's collection.				
How to navigate the LR&TS library Web page in order to search for scholarly journal articles.				
How to distinguish between popular and scholarly journal articles.				

How to detect bias within sources of information.				
How to properly cite information using an appropriate citation style.				
How to develop a research question(s) and/or strategy.				
How to use an electronic bibliographic tool such as RefWorks				
How to avoid plagiarism and the violation of copyright law				
How to compare information sources to choose the most credible source.				

3. Which instructional methods do you employ in order to cue your students into the fact that the information literacy skills gained in IM 104 and/or IM 204 are transferable and applicable to meet the information demands required of people in their place of employment and daily life? (Check all that apply.)

Provide real world examples in classroom discussions, handouts, or syllabi of how accessing, evaluating, and presenting information may be useful outside of the academic classroom.
Require students to engage in a service learning project where they must apply their information literacy skills in a real world setting.
Discuss the role of information when making important real-life decisions such as financial, medical, political, etc.
Invite guest speakers to talk about how information literacy is valued in the workplace by employers.
Provide authentic activities such as taste tests for students to determine the role of bias and error in a real life situation.
I do NOT use any of these instructional methods.

4. How well do you think students generally mastered the following skills during IM 104/ IM 204?

	Could easily do this	Could possibly do this	Still need help	I don't know
Locating a scholarly journal article				
Locating information that would be needed during the course of a student's job such as creating a document or presentation				
Locating information when needed in daily life situations in order to make decisions such as medical, financial etc.				
Locating information to become				



successful in another academic course				
Developed awareness of how to use a variety of sources to find information.				

5. Please rate how you feel the knowledge and skills students gain in IM 104 or IM 204 may positively impact their academic achievement and/or college career.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
Students may receive higher grades on assignments given in subsequent/simultaneous courses (papers, projects, presentations) because they used more credible sources of information that were addressed in class.					
Students may spend less time revising assignments in subsequent courses (papers, projects, presentations) because they use more credible sources of information addressed in class.					
Students may be less intimidated about using the library and the library's homepage because they should know where to find information as a result					

of taking IM 104 or IM 204.					
Students should be able to find information more quickly as a result of taking IM 104 or IM 204 making it easier to complete assignments.					
Students should no longer dread creating bibliographies or works cited pages because they should have learned how to format citations using an approved citation style.					
Students should no longer dread creating bibliographies or works cited pages because they know how to an electronic bibliographic tool such as RefWorks.					
Students should no longer feel intimidated to ask a reference librarian a question because a librarian instructed the course.					
After completing IM 104 or IM 204, students have the opportunity to share their knowledge and skills with other people.					
I believe the knowledge and skills gained from IM 104 or IM 204 has NOT had a positive impact on student's academic achievement.					

6. How have you observed students changing their information seeking behaviors over the course of the semester? (Check all that apply).

Students spend less time looking for information because they are now trained to find credible information in an efficient manner.
Students utilize a wider variety of resources than they were unaware of before taking IM 104 of 204.
Students have stopped using Wikipedia as a sole source.
Students are able to apply the rules of a citation style, such as APA formatting, with fewer errors when completing coursework such as writing a research paper or creating a bibliography.
Fewer complaints are heard from students when discussing the creation of bibliographic pages because students now have access to electronic bibliographic tools such as Ref Works.
Fewer students are caught plagiarizing by copying and pasting information from the Internet into their assignments.

7. Rate how you think your students would generally be likely to recommend this course to another student.

Not at all likely					Very likely				
1	2	3	4	5	6	7	8	9	10