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Library Use and Intended Use; (2) Feelings about the Library; (3) Attitudes
towards Librarians; and (4) Perceived Effectiveness of Library Instruction.
Each set of paired classes were comprised of a control group that did not
receive a pre-session and an experimental group given a pre-session. Both the
control group and the experimental groups were paired with the same
instructor and the same librarian for each set of classes. Pre-test and
post-test questionnaires were given to both groups as the instrument to
measure the effects of the pre-session. Each questionnaire used nine
questions designed with the semantic differential to measure student
responses. Findings suggest that pre-sessions improve the affective
experience students have in the library; overall, pre-session students showed
significantly more positive attitudes towards the library, the librarian, and
the library instruction class than the students who only had a single
instructional session. The pre- and post-test questionnaires are appended.
(Contains 43 references.) (Author/AEF)

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LIBRARY INSTRUCTION: AFFECTING CHANGE IN THE CLASSROOM

A Master's Research Paper submitted to the
Kent State University School of Library and Information Science
in partial fulfillment of the requirements
for the degree Master of Library Science

by

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ABSTRACT

This study attempted to determine what effect a ten to twenty minute pre-session given in the students' classroom prior to a regularly scheduled library instruction session in the library had upon the affective experience of freshman composition students. Students in six paired classes were given pre-test and post-test questionnaires to determine if there was a difference in scores in four areas measured by the study: 1) Library Use and Intended Use; 2) Feelings About the Library; 3) Attitudes towards Librarians; 4) Perceived Effectiveness of Library Instruction. Each set of paired classes were comprised of a control group that did not receive a pre-session and an experimental group given a pre-session. Both the control group and the experimental groups were paired with the same instructor and the same librarian for each set of classes. Pre-test and post-test questionnaires were given to both groups as the instrument to measure the effects of the pre-session. Each questionnaire used nine questions designed with the semantic differential to measure student responses. The results of the study were reported as a comparison of the difference between mean scores of the No session/control group and the Pre-session/experimental group for each set of questions on the pre-test and the post-test questions . Then the difference of mean scores for all the questions for both the No session/control group and the Pre-session/experimental group was compared to determine if the pre-session had any significant overall effect on improving the affective experience of students receiving library instruction.

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CHAPTER 1

INTRODUCTION

The difficulty of measuring attitudes in some quantifiable manner can in no way excuse the affective realm from the equation in evaluating library instruction programs. Emotions and feelings are the first contact points of human experience. Individuals use emotions and feelings to prioritize information and reach decisions that can, in turn, initiate a course of action. Competing responses determine choices that ultimately connect emotions and motivational systems (Jones 1995, 45). Consequently, library instruction that is directed toward improving skills and habits of individuals without taking into account feelings of uncertainty and anxiety as well as attitudes of resistance experienced by those individuals using the library will potentially fall short of achieving the desired effect--that of producing confident and competent library users who regard libraries and librarians as allies in the quest of becoming a more informed citizenry.

The affective realm is often ignored as an aspect integral to process of library instruction. Feelings of anxiety including fear, shame, helplessness, frustration, and inadequacy are responses generally associated with the library for many individuals (Mellon 1986, 162-163). Yet the objectives of instruction sessions seldom focus on the affective states that can impact greatly on students' readiness to learn. Library instruction generally centers on orientation, lecture, course-integrated instruction, demonstration, handouts, and point-of-use instruction that attempts to develop cognitive and behavioral skills without attending to how the students perceive the library, librarians, and instruction. Although more and more course-integrated "how come" instruction is helping to develop effective instruction, common methodologies based primarily on behavioral and cognitive learning theories endeavor to improve skills by providing "how to" lessons concentrating on the

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performance of the students. Aspects of feelings, emotions, and attitudes that provide the motivational context corresponding to individual needs and perceptions are ignored or at best addressed only at a superficial level. This becomes even more pronounced as students attend sessions in the library classroom setting outside of the regular classroom.

Learner readiness, a necessary state of being receptive cognitively and affectively to the process of assimilating new information, is inevitably sacrificed in the rush of the one-time, one shot, fifty minute presentation. In addition, needs assessment involving the students directly, regarded by many as a primary directive or element of effective instruction, is rarely an option in a one-time lecture session. Consequently, library instruction generally has evolved into a requirement in which the librarian in coordination with the classroom teacher decides what is significant and what is best for the students without consideration for what the specific individuals attending a session need or would like to know.

Although integrating and tailoring library instruction to specific assignments can offer a method that directly addresses the students' needs in a specific situation, future library instruction must offer more to each individual student, especially in the highly dynamic environment of technologies that include the internet, online and CD-ROM databases, online catalogs, government documents, and more. If library instruction, networks, and databases are "a response to patrons' demand for navigational assistance in the local collection as well as broader access" that exist beyond the walls of individual institutions as Davis and Niessen suggest, then librarians will have to find ways to address these needs (Davis and Niessen 1994, 141). Critical thinking, active learning, and skills in evaluating resources and information will be integral to instruction. In addition, electronic instructional strategies that complement the reference interview and the reference process

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must also be helpful to more than the specialized and sophisticated individuals familiar with the technology. "There is room for more than one medium, one educational style, and one kind of inquiry" (Davis and Niessen 1994, 141). In order to be effective, library instruction will have to address a multidimensional group of students with varying abilities and needs. The gap between students with technological backgrounds and those without will widen and become more difficult to ignore as more and more technology is implemented as a part of information science. Classroom environments will polarize students making simple lectures without one-on-one hands-on training difficult if not impossible. Whereas finding information might be difficult for some, others will have trouble coping with an overabundance of materials and the use of databases with multiple interfaces. Future library instruction may have to concentrate more on information management than on the current trend of research strategies. Yet, librarians will still only have a single, one-time session to "work their magic" unless instruction is restructured in another format beyond the fifty minute lecture.

Objectives of the Study

The purpose of this research is to investigate whether or not a pre-session given prior to the typical library instruction class will have any affective benefits for freshman composition students that would translate into creating a better learning situation in which students are less resistant and uncomfortable in the library environment. The pre-session involves the librarians going to the classroom of the students for ten to twenty minutes prior to the students coming to the library for an actual library instruction session. The pre-session is designed to address the affective needs of students by helping to reduce anxiety and the resistance of students to the library and library

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instruction by doing the following:

1) Introduce the librarian and the objectives of the upcoming library instruction session to the students.

2) Take an informal needs assessment of the particular class to determine their strengths and weaknesses, and to coordinate the students' expectation with the objectives of the librarian. Students could be asked to think of topics, areas of interest, or elements of research that could be addressed during the actual library instruction session so that instruction could be better directed toward their needs. Also, students that have very little experience in the library could be directed to visit the library prior to instruction.

3) Reduce anxiety and resistance. A large proportion of the fifty minutes librarians have in a typical session is used trying to establish a rapport and a non-threatening environment. Consequently, affective experiences of the students like anxiety, fear, and general discomfort are often ignored. The pre-session allows the librarian to address those aspects of instruction before students arrive at the library for more formal instruction.

4) The pre-session would also offer a little extra time to prepare both the students and the instructors of the class for a more in-depth and personalized type of instruction that is often not possible in the one-time, fifty minute session.

The first three components of the pre-session typically are elements that are included in the regular instruction session. However, because the pre-session is conducted in the students' classroom prior to their arrival at the library, many preconceived notions and trepidations that students may have about the library can be attended to before they present any impediment in the learning process. Consequently, the type of instruction that the students receive will vary depending upon some of the information gathered by the librarian through needs assessment.

In the process of analyzing pre-test score and post-test scores, the mean scores are expected to improve due to the actual instruction given to both the control and the experimental group. Thus the only valid comparison is to compare the difference of mean scores for each question. It is expected that there will be a significant difference between the pre-test and post-test scores of the experimental group in comparison with the control group that will indicate a more favorable attitude toward the library, toward librarians, toward conducting research, and toward library instruction. The

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seeking has become increasingly complex with each new tool or enhancement" (King and Baker 1987, 97). In addition, academic libraries differ both in the organizational scheme and in the philosophy of their function. Students must adapt to the change from the Dewey Decimal to the Library of Congress classification system, and a different service orientation in academic libraries which supports the curriculum and therefore serves more of an instructional role in comparison with the information provider role of the public and school libraries. Students who may have felt competent at finding information in public or high school libraries face new challenges in the academic library (Collins, Mellon, and Young 1987, 77).

As libraries become more sophisticated technologically and more access oriented, library instruction will need to focus on more than how to use computers, databases, and other equipment. Effective instruction will necessitate the application of what is known about individuals using the library and how they learn (Stoffle and Bernero 1987, 15). Students learn in different ways through a variety of styles. Anderson and Adams outline the diversity among college students in the following areas:

1) Social relational skills, values, and characteristics;
2) Information-processing orientations and skills;
3) Communication patterns;
4) Learning styles and strategies;
5) Motivational styles;
6) Psychological characteristics (Anderson and Adams 1992, 20).

Diversity among student populations emphasizes the importance of needs assessment as a method of identifying the specific requirements of a particular group necessary to administer effective and appropriate instruction to all individuals in as much as it is possible. Individuals have preferred learning styles, and librarians have some responsibility to attend to those learning styles (Henson and

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Borthwick 1984, 4). However, effective assessment of needs must be a planned, formal process that encourages communication between the student community and the librarian (Downing, MacAdam, and Nichols 1993, 80). In the heat of the one-shot, fifty minute lecture, librarians can at best only react and respond to needs without the benefit of a planned response that addresses specific problems known prior to the instruction session. The success of not only specific instructional sessions but possibly the entire instructional program depends upon how effectively librarians, as instructors, can determine the characteristics of a group, the expressed difficulties and problems, and the most appropriate course of action that can reasonably attend to those difficulties and problems. A major objective of the pre-session aims at assessing the particular needs of a group prior to the actual class in order to enable the librarian to tailor instruction to the group in contrast to the "canned" session that assumes a "one size fits all" method of instruction.

CHAPTER 2

LITERATURE REVIEW

In 1980, the American Library Association published a policy statement that regarded library instruction as an accepted and integral function of public service. Prior to 1980, instruction programs experienced the challenges and adversity of a growing process that was evolving primarily on the local level. Programs grew out of institutions such as Earlham College, University of Michigan, UCLA, University of Texas-Austin, University of Wisconsin-Parkside, and others (Stoffle and Bernero 1987, 12-13). Organizations like Bibliographic Instruction Section of the Association of College and Research Libraries, the Library Orientation Instruction Exchange (LOEX), and the National Library Instruction Clearinghouse created forums by which instructional methods and materials could be shared and discussed. However, the profession was loosely organized without standards and guidelines in what was described as the "First Generation" of instruction librarians. Consequently library instruction was a service divided and in need of a cohesive vision. After 1980, librarians and instruction coordinators as part of the "Second Generation," began transforming library instruction from "a grassroots movement to an established part of academic librarianship" (Mellon 1987, xiii).

The literature review that follows examines library instruction in conjunction with integrating objectives that attend to the personal attitudes and feelings of students--attitudes and feelings that can cause individuals to avoid or resist using the library or consulting a librarian. There is evidence to suggest revising current objectives and methodologies to address the needs of the individual. In particular, the literature suggests reexamining library instruction and how well instruction administers to the affective response of students to the library, librarians, and instruction in general.

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Many definitions exist within the discipline of psychoanalysis and education for describing what is meant by the affective realm. Definitions can range from emotions and feelings to general moods or massive expression of feelings. Joseph M. Jones describes the framework of affect to include "diverse emotions such as love, hate, and fear; bodily sensations such as hunger, thirst, and physical pain; and moods such as mania and depression" (Jones 1995, 39). The word feeling extends to a wide range of human experience as illustrated by the following statements: *I feel happy*; *I feel sick*; *I feel like crying*; or *I feel for you*. The first statement describes an emotion or an emotional state. The second statement describes a physical sensation. The third statement describes how feeling can guide behavior. The last statement describes a state of empathy projecting an emotional state influenced by external stimulus.

People function within the realm of feelings which act upon or influence their perception of reality. Steven L. Ablon stressed the reemergence of feeling and sensibilities as an area of inquiry with regards to human behavior. Omnipresent in every aspect of experience, feelings are a basic and essential component of being human, and consequently people rely on feelings to "evaluate authenticity, to bridge the world of possibilities, and to reorganize and refine, even to create" their observations (Ablon 1993, xiii). The investigation of the affective realm of human understanding is an analysis of the cognitive and contextual experience in which different feelings emerge. In other words, knowledge relies on the emergence of sensibility and self-actualization through human experience and the transformations of feelings (Ablon 1993, xx).

Investigating affective experiences centers upon the idea that attitudes, feelings, and emotions form the foundation of human orientation to the social world. Human actions are related to the complex system of beliefs and feelings in such a way that attitude often influences behavior (Ajzen

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and Fishbein 1980, 19). Individuals employ feelings and emotions to appraise specific situations and to develop actions or tendencies that establish, maintain, alter, or disrupt their relationships to those situations (Brown 1993, 32). According to Ajzen and Fishbein's theory of reasoned action, an action or behavior is the outcome of a favorable attitude toward performing the behavior (Ajzen and Fishbein 1980, 7). A particular attitude toward a person, institution, or event is a composite of the positive and negative evaluation of that person, institution, or event. Consequently, attitudes serve as an index for determining whether an individual likes or dislikes an object--an object being a person, institution, or event (Ajzen and Fishbein 1980, 64).

Understanding the affective reaction to the library and library use is central to instruction about the process of research. An individual can maintain attitudes about an object such as the library or the librarian that can determine or influence behavior such as the decision to use the library or to communicate with the librarian. Previous experiences in similar situations that seemed unpleasant or threatening may further determine an individual's perception of a current environment. Therefore, it follows that if the goal of library instruction is to impart knowledge and skills to individuals attempting to pursue and locate information, then the success of library instruction as a program may be dependent in part upon establishing a receptive attitude and emotional response within the students. If students have attitudes contrary to instruction, believing that what they are being taught is meaningless or not applicable, then it is likely they will not follow through with behaviors corresponding with the learning objectives of that instruction.

Kuhlthau described a six-stage model that details the thoughts, feelings, actions, strategies, and mood of individuals engaged in three phases of the search process--information seeking, gathering, and giving. The first stage is the initiation of a task or the receiving of an assignment that

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could be broadened to include the realization of what Brenda Dervin describes as an "information gap" (Dervin and Dewdney 1986, 507). The first stage is characterized by feelings of apprehension and uncertainty. The second stage is the selection of a topic and is accompanied by optimism. The third stage begins the difficult task of pre-focus exploration in which feelings of confusion, frustration, and anxiety are encountered. The fourth stage of focus formulation is the point at which doubt turns to confidence and optimism. The fifth stage is the collection of information in which continued optimism and confidence occurs unless the information is incomplete or not available. The sixth stage is the search closure that is characterized either by feelings of satisfaction and relief because the information was successfully found or by feelings of disappointment and frustration because the final product did not yield the anticipated results (Kuhlthau 1985, 24-25). Each stage may be filled with either affective responses associated with a successful and skilled library user or those associated with a unsuccessful and probably frustrated user who generally feels incompetent.

Constance Mellon described students' attitudes and responses to the library in terms of fear and qualitatively studied these reactions to illustrate the theory of "library anxiety." Not only did she find that 75 to 85 percent of students label their initial response to the library as a fear or phobia, but students also had difficulties because they experienced feelings of inadequacy and shame (Mellon 1986, 162). Students felt isolated, as if their skills individually were not at a standard comparable to others, and often they felt as though were expected to know more than they knew. In a separate study, freshman writing students were given a pre-test early in the semester which indicated they knew little about locating books by subject and even less about locating periodical articles by subject (Barclay 1993, 198-199). In addition, rather than ask questions that would potentially lead to further humiliation or to revealing their inadequacies, the individuals studied demonstrated a tendency to

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resist or refuse assistance, preferring to risk failing rather than expose what they believed was their own incompetence.

According to Elizabeth McNeer, students arrive on campuses year after year unable to adequately conduct research in the library, and librarians face the frustration of trying to successfully teach students about available resources (McNeer 1991, 294). If the role of librarianship is to assist people in finding relevant information, then effective library instruction necessitates that students overcome feelings of frustration and anxiety resulting from their inability to approach the problem logically or effectively. The librarian as an instructor must blend the knowledge and skills of the information sources with the ability to speak and communicate effectively while imparting information to students in a stimulating environment (Patterson and Howell 1990, 522).

In a study that attempted to determine the most satisfying aspect of teaching the use of the library, 14.15% of the respondents answered that the appreciation of students was the most satisfying part of instruction, and only 8.5% of the respondents found changing perceptions about the library as most satisfying. The most satisfying aspect of teaching was helping users become self-sufficient. What the librarians studied found least satisfying was student apathy (30%). Two percent of the respondents said the least satisfying aspect of instruction was that the content of the class was too fixed (Patterson and Howell 1990, 521). Consequently, the study seems to indicate that instruction is most enjoyable when directed toward helping students become independent and self-sufficient even though student apathy often disrupts the process. The question is whether or not library instruction can eliminate apathy and inspire independent learners without administering to the individual needs of students. Rather than instruct students and assist them to become independent thinkers, librarians often devise learning experiences within highly structured search designs, giving

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students the impression research is "a piece of cake" (Sheridan 1990, 23). A less rigid planned lesson that takes advantage of the natural difficulties of the research process could lead to less apathy in the classroom. Students could identify with potential difficulties that even a "professional librarian" might encounter.

Cognitive objectives directed at the affective realm are primarily performance based or linked directly to behavioral objectives that are measurable, realistic, and learnable. However, cognitive and affective objectives need to be considered as distinct objectives in the process of instruction--wherein cognitive involves knowing, conceptualizing, and comprehending; and affective involves attitudes and values (Tiefel 1983, 29). As evidenced in the model statement of objectives for academic bibliographic instruction prepared by the ACRL Bibliographic Instruction Section in 1991, the general and terminal objectives do not address the affective needs of students. Instead specific skills necessary to complete assignments and prepare individuals to make life-long use of information are the focus of instruction (Dusenbury et al 1991, 5).

Given the limited amount of time that instruction librarians have for individual sessions, needs assessments for the specific group are rarely addressed beyond the collegial effort of the faculty and the librarian prior to the class. The instructor informs the librarian what the students need to know, and the librarian devises a strategy to accomplish that objective. McInnis and Symes point out that without the most basic and fundamental knowledge to read and interpret bibliographic citations--the "traditional components of the BI curriculum"--students will not be able to function properly as scholars (McInnis and Symes 1991, 227). But in order for librarians to be proficient in addressing the specific needs of a particular group of students, they must be able to adjust and adapt the information being taught (Patterson and Howell 1990, 522).

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Nahl-Jacobovits and Jacobovits point out that key features of instructional design are to discover what people need to learn, usually through "interviews with learners or through questionnaires," then to determine instructional goals and objectives based upon those needs. The development of objectives necessitates including all three traditional domains of human behavior: "the affective domain of feelings and attitudes; the cognitive domain of planning, reasoning, and deciding; and the sensorimotor domain of overt actions" (Nahl-Jacobovits and Jacobovits 1993, 74-75). The affective domain is an important aspect of the instructional process in that it addresses the students' motivation, their involvement in the learning process, their experience of self-actualization and discovery, and their feelings in the context of the library environment.

However, research about affect often combines objectives that are cognitive in nature or performance based. In evaluating a graduate library orientation program, Mary I. Piette and Betty Dance measured comfort and competence simultaneously in one question in which students are given an option of answering the question *Not at all*, *Small degree*, *Some degree*, or *Large degree* (Piette and Dance 1993, 165-167). By aligning comfort with competence, Piette and Dance attempted to measure separate states of experience--comfort being an affective response and competence being a cognitive response resulting from a successful action. The question assumes that feeling at ease is a corresponding attribute of adapting successfully to an environment. The question actually asks students to make a choice between two different responses. Asking two separate questions--one to determine competency and a second to determine how comfortable the students felt--would produce a more accurate measurement as well as less confusion between competing responses. Students may feel comfortable without feeling competent for a variety of reasons such as not recognizing any deficiencies in their use of the library. Conversely, they could feel competent

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without feeling comfortable. In addition, without a pre-test to determine if students felt comfortable or competent before the instruction, then there is no way to determine if the instruction made any difference in the way they felt.

Karen Burdick Pearson examined anxiety in the context of library use and specifically whether library instruction makes a difference in the anxiety level students associated with the library. Pearson found no significant difference between students who received library instruction and students who did not receive such instruction. Factors that may have contributed to the results were "student perception of the authority or expertise of the librarian, instructor attitudes toward library research, amount of class time spent discussing library research, method of bibliographic instruction, and amount of individualized assistance received at the Reference Desk" (Pearson 1993, 42). Another aspect of library instruction that may have influenced the results was that individuals might have realized during instruction that they knew less than they thought they knew thus increasing the level of anxiety. The challenge in library instruction that Pearson's study exposes is to attempt to prepare students to receive instruction and to perhaps prepare them in advance of a fifty minute session.

In terms of initiating pre-sessions, a necessary consideration is the classroom instructor's willingness to relinquish additional class time. In her revised study of a 1982 survey of faculty at California State University, Long Beach replicated in 1990, Joy Thomas examined faculty attitudes toward library instruction in an academic setting. She discovered that a "distressing number of professors believe that students should learn library skills unaided" (Thomas 1994, 210). Correlated with that finding, the study also found that only 19 of 542 respondents indicated they had learned to use the library by having a librarian lecture to their class. Although coordinating the library

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instruction effort between the librarians and faculty is a necessary and beneficial use of time that could result in better end products (i.e. better research, better papers, and better students), 52.5 percent of faculty respondents in the Thomas study claimed the curriculum was too full for library instruction. At the same time, on a 1 to 5 scale (1 was *not satisfied* and 5 was *very satisfied*), faculty gave students' research abilities a score of 2.82, and only 25.5 percent expressed the satisfaction level at the 4 or 5 level. The survey illustrated that 18.1 percent of the respondents volunteered that "they had no idea how their students learned to use the library and felt no responsibility to teach them." The last point is of note because the figure of 18.1 percent had more than tripled from the 1982 figure of 6.0 percent (Thomas 1994, 213-216).

Although the results could provide the basis for similar surveys and comparisons on other campuses, in the final analysis Thomas suggests that library instruction might serve the greatest number of students by concentrating efforts in classes where the faculty member has demonstrated an interest and a commitment to the library's service. The integration of the pre-session may serve two purposes regarding some solution to the concerns Thomas raises. First, by agreeing to the pre-session, faculty will inherently make a commitment to library instruction by allowing for more time to be set aside. Second, during the brief introduction given to the students by the librarian in the pre-session, faculty members will be informed as well about the goals of the library class so as to better integrate library use and instruction into their course objectives.

Using the BI-L LISTSERV, additional data was gathered about using introductory pre-sessions to reduce anxiety and resistance of students, to establish rapport between the librarian and the students, and to take informal needs assessment. The results of the inquiry indicated some resistance to the program because of the concern about the "time (or energy?)" needed to undertake

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a briefing session for every class. Also, it was suggested that an experienced instructional librarian could establish a rapport with students "and set the goals and tone of the presentation in a matter of minutes" (Thomas 1996). Additional instruction added to an already full schedule may explain the hesitancy to offering a pre-session plus a regular instruction session, but ultimately it may also translate into dismissing the possibility of attending to those affective needs.

Beginning in the Fall of 1993, ten-minute introductions were given prior to library sessions at Brigham Young University for Advanced Writing English students (Tidwell, 1996). Statistics gathered to monitor the effect of introductory sessions indicated an increase in the students' voluntary participation. The percentage of students attending library instruction sessions increased as follows:

45% participation in Summer 1993
54% participation in Fall 1993
62% participation in Winter 1994, Spring 1994, and Summer 1994.
66% participation in Fall 1994.
67% participation in Winter 1995.
73% participation in Spring 1995.
76% participation in Summer 1995.
74% participation in Fall 1995 (Tidwell 1996).

Although the difference in number of students going to a library instruction after the introductory session was offered may be the result of additional unknown factors due to the lack of scientific methodology used to gather the statistics, the results provide a basis for speculation as to the possible effects on student attitudes.

In a 1981 study, King and Ory outlined two fundamental goals for library instruction as follows: first, "to improve students' ability to use library resources and services to effectively meet their informational needs;" and second, "to instill realistic attitudes and expectations concerning the

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library and its accessibility" (King and Ory 1981, 31). The second goal of instilling realistic attitudes was measured by the students' perceptual responses and self-evaluation. Results of the research indicated that students who received library instruction experienced more confidence locating material were more comfortable asking for assistance than the group receiving no instruction. In addition, the instruction group also responded that using the library was less a frustrating experience than the no instruction group (King and Ory 1981, 38-39). Consequently, the study indicates that instruction can serve to ease some of the causes of anxiety and frustration associated with the library and the use of the library.

In conclusion, if the purpose of library instruction is to impart the skills and knowledge necessary to help individuals become effective and independent library users, then the success of instructional programs will depend upon attending to students' individual needs and responses to the library. This study represents new research investigating the use of pre-sessions as a basic instructional design offering librarians an opportunity to begin introductory phases of instruction and to conduct needs assessment in conjunction with a regular instructional session in the library. The pre-session is designed to take place in the students' classroom environment in order to eliminate the initial responses of fear that Mellon describes in her theory of library anxiety.

The review of literature suggests that in the field of library science attending to the wide range of attitudes, emotions, and feelings that can guide the behavior of individuals using the library may be a necessary element for successful library instruction. The affective realm of human experience is the composite of these attitudes, emotions, and feelings forming the foundation of how people perceive their social environment and how they interact within it. In relationship to students' experiences with the library and with instruction in library use, the implementation of pre-sessions

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prior to library instruction classes should be studied as be a viable option for attending to the affective needs of students. Pre-sessions may require the librarian stepping out of their typical environment and perhaps even experiencing some comparable anxiety by going into the classroom of the students. However, the possible outcome is having librarians more directly involved in the process of initiating affective objectives that attempt to create an environment of learner readiness.

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CHAPTER 3

RESEARCH OBJECTIVES

This study examined the pre-session as a possible solution for alleviating some of the fears and anxiety that affect students as library users and impede the process of instruction. The project attempted to determine if a pre-session prior to a regularly scheduled library instruction session would have any effect upon student attitudes towards the library, the librarians, the relevance of using the library, and the effectiveness of library instruction. By taking into account students' perception of the library as well the project assessed whether library instruction might achieve better success when given in conjunction with pre-sessions in the students' classroom.

Librarians generally teach within a construct of varying objectives. On one hand, they have to provide sound traditional instruction in library use. On the other hand, they must attend to the unique individual needs and emotional responses of a group of students with varied interests and abilities. In addition, they must satisfy both objectives within the constraint of a one-time fifty minute lecture. Some of the difficulty may be overcome by carefully observing students coming into instructional sessions or by analyzing individual learning experiences (Mellon and Pagles 1987, 137). The pre-session can serve as a viable option for offering a separate period of time to observe students and conduct informal interviews prior to instruction. Librarians could then tailor instruction to directly attend to the needs of a particular class during a regular session.

Pre-sessions for this study took place in the classroom of the students and not in the library in order to reduce the possible negative affective responses which students typically have toward the library as demonstrated in the Mellon study (Mellon 1986, 162). The information collected in the pre-test and post-test questionnaires attempted to determine whether offering the pre-session in an

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environment the students are accustomed to would reduce affective responses that might impede the learning process, and what change if any would occur on the affective level for those students in comparison with students attending a library instruction session without the pre-session. Ultimately, the study evaluated whether or not a pre-session had a significant effect on decreasing students' anxiety and apathy thus improving the overall effectiveness of library instruction.

Definition of Terms

Library Instruction is used throughout this study as the term to describe and refer to aspects of instruction included in the terms *bibliographic instruction*, *library orientation*, *user education*, or *library skills instruction*. Library Instruction includes and extends to activities such as orientation and tour activities designed to introduce individuals to services, facilities, and resources; course-related instruction designed to provide individuals with information skills to assist in the completion of one or more activities as an element of a particular course: course-integrated instruction designed as a part of the course objectives and essential to a acquiring a basic competence within the subject area; team teaching designed and given by collaborative effort of librarian and the classroom instructor; and, although seldom discussed in this study, the separate course designed to be taught by a librarian as a part of the institutional curriculum either for credit or for no credit (Bopp and Smith 1995, 174). As such, library instruction is used in conjunction with activities both inside and outside of the library which relate to introducing, assisting, or guiding individuals or educating students in the use of the library, its collections and resources, and techniques associated with research.

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Affect or *Affective Experiences* refers to emotional states or experiences related to feelings, attitudes, beliefs, wishes, and desires. Individuals rely on feelings to process information in every aspect of human experience from evaluating authenticity to organizing, refining, and creating observed reality. Emotional experiences are embedded within a matrix of fantasies, schemas, and memories cognitively and linguistically organized to form both the conscious and unconscious awareness by which an individual responds to and transcends reality (Brown 1993, 25). Affect is closely allied with the sense of self or the physical being, and clues to the way people learn are available through careful observation (Mellon and Pagles 1987, 137). Throughout this study, references to affect and affective experiences will be made with the understanding that feelings and emotions shape an individual's perception of reality. In the use of the library and with respect to library instruction, the affective experience will influence an individuals readiness and willingness to learn.

Library Anxiety refers to the recurrent feelings of fear, confusion, helplessness, incompetence, or anxiousness experienced by individuals in relationship to the library and library use. Mellon described library anxiety as having four causes: 1) the size of the library; 2) the lack of knowledge about where things are; 3) not knowing how to begin; and 4) not having a clear understanding of what to do (Mellon 1986, 162). Individuals experiencing library anxiety will often resist instruction and assistance because they feel their skills are inadequate in comparison with others, and they feel as though they are expected to have already acquired a measure of competency in library use. As a result of a personal fear of failure or the risk of appearing ignorant, individuals may feel uncomfortable with or refuse to ask questions that might reveal a perceived ignorance.

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Needs Assessment is a method of determining the specific requirement integral to the success of individuals within a particular class. Needs assessment is a carefully planned process that attempts to reduce the discrepancy between "what is" and "what should be" by including the students in a communication process that helps to set instructional priorities (Downing, MacAdam, and Nichols 1993, 80). The objective of needs assessment is to heighten the awareness of both the librarian and the students as to what is necessary to achieve a successful and beneficial instruction session, allowing the librarian to discover what individuals needs to learn. The needs assessment indicates who the individuals are--their experience at the library; what they know and what they do not know; what resources they are familiar with and what resources they have not experienced or used (Roberts 1986, 47). The end product of needs assessment is to determine instruction goals and objectives that will ultimately fulfill the unique needs of the students.

Pre-session is the ten to twenty minute session given to students prior to scheduled library instruction class. The pre-session involves the librarians going to the classroom of the students in an effort to reduce anxiety and the resistance of students. The pre-session also intends to introduce the librarian and to provide students with an initial outline of what will be covered during the instruction session. The final element of the pre-session involves taking a preliminary needs assessment to assist in tailoring instruction to meet individual needs. The specific content of the pre-session is structured in correlation with the material included in the instruction session and can be adapted to meet the particular needs of a group of students attending the session.

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Instruction Session is a regularly scheduled library instruction class that is given in the library by a librarian as a part of the curriculum in the core freshman composition classes. The sessions typically last about fifty minutes and involve a variety of activities such as creating topics, developing research strategies, and using the online catalog and periodical databases. The objectives of instruction are flexible enough to meet the needs of varying abilities within diverse groups of students. Often an attempt to integrate instruction within the context of a specific class is conducted through a personal or a telephone interview between the librarian and the instructor.

Statement of Assumptions Basic to the Study

Student apathy and reluctance to using the library must be addressed before the work of instruction begins. "Attitudes must be changed, reassurances must be offered, and anxieties must be allayed" (Collins, Mellon, and Young 1987, 79). The following study assumed that individuals have unique subjective responses to their experience within the library and in performing research. In addition, it is assumed that students have similarly unique responses toward the librarian. Associated with these responses are feelings, emotions, altitudes, and beliefs that may play a significant role in the development of individuals as independent and informed library users.

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CHAPTER 4

METHODOLOGY

This study used pre-test/post-test questionnaires to measure student attitudes, feelings, and beliefs about the library. Questionnaires were designed by using the semantic differential to distinguish between sets of oppositional phrases that could then be assigned numerical values and analyzed as mean scores. Pre-tests were administered prior to any instruction, and post-tests were administered after instruction. An independent person participated as the administrator of both pre-tests and post-tests for all classes. All students attended a scheduled instructional class in the library as a part of the freshman composition curriculum. The pre-session was usually integrated into the schedule during the class session prior to the library instruction session. The study compared scores from three pairs of classes. One class from each pair served as a controlled group, and the other class from the pair served as the experimental pre-session group. Difference of mean scores between groups of students who received the experimental pre-session and those who did not were compared to determine what effect if any occurs on the affective level as a result of the pre-session.

Subjects

Students from six freshman composition classes at Southern Oregon State College participated as subjects in the project. Three classes served as the experimental group and had a librarian give a pre-session prior to the regularly scheduled instruction session. The other three classes served as the control group and had only the regularly scheduled instruction session. Three librarians participated in the study and taught two classes each for the same instructor--one as a control session and one as an experimental session in which students were exposed to a pre-session

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in their classroom. The library instruction session was scheduled for all students as a component of their freshman composition class. Both groups attended the session on the same day for the same duration of time. Both groups were given a pre-test and a post-test questionnaire using the semantic differential to determine attitudes toward using the library, conducting research, consulting librarians, and attending library instruction classes. The pre-test was administered during the class period prior to any instruction session with the librarian--either before the pre-session for the experimental group or prior to the actual instruction session for the control group. The post-test was administered during the first regular class period after the instruction session at the library. Both pre-tests and post-tests were administered in the students' regular classroom.

Consent to conduct the study was obtained from the Library Director, the Head of Reference, and the English Department of Southern Oregon State College. Participation in the study was voluntary, and students were free to withdraw from the study at any time. Individual pre-test and post-test scores were anonymous, and only the researcher reviewed the scores. Pairs of classes were made up of classes with the same instructor and the same librarian. From the three pairs of classes, one class was assigned to participate as the experimental group and the other was assigned as the control group by chance drawing. Participation in the study necessitated the agreement of both the instruction librarian and the instructor of the class. Any student under the age of 18 was asked to not participate in the study. Students who did not participate in the pre-test for any reason were asked to not participate in the post-test.

Sample size of the no pre-session group was 60 for the pre-test and 54 for the post-test. The pre-session group had a sample size of 65 for the pre-test and 57 for the post-test. Some attrition was was expected in the results due to students either dropping the class or being absent on the day the

post-test was administered. The study used an independent-samples design rather than a correlated-samples design, so there was no way to determine which students did not participate in the post-test. Further study is recommended matching individual students' pre-test and post-test to allow a correlated-samples design to be used while still maintaining student anonymity.

Background and Physical Environment of the Institution

The Southern Oregon State College (SOSC) Library is a small to medium size library with a collection of over 250,000 books and 2,500 journals, periodical, serials, and newspapers. The library serves the needs of the liberal arts college's faculty and approximately 5,000 students as well as communities throughout Southern Oregon and the Rogue Valley extending from Ashland to Medford and Grants Pass. The Distance Learning program links the library with faculty and students at Southwestern Community College in Coos Bay. The SOSC Library online public access catalog (OPAC) is part of the ORBIS Union Catalog that links SOSC to other university and college libraries throughout the state of Oregon.

The library instruction program currently serves the curriculum of the freshman composition core classes as well as upper division and graduate courses. This research is directed toward the freshman composition core classes--introducing students to the library, helping to reduce anxiety and develop positive attitudes toward the library, and acquire an understanding of the information utilities on the OPAC called RogueLinx, the CD-ROM network, and the FirstSearch online database. The student population is composed of both traditional and nontraditional matriculating individuals often pursuing second careers. Preliminary needs assessment activities during library instruction sessions reveal individuals with a wide range of experience in using both the library and in using

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bibliographic sources and tools.

Measurement Instrument

Pre-test and post-test questionnaires designed using the semantic differential scale were used to measure attitudes, intentions, and feelings of students in selected freshman composition classes receiving library instruction. Although Thurston and Likert scales can also infer attitudes by relying on beliefs or intentions to predict behavior based on statements (Ajzen and Fishbein 1980, 21), this study preferred the semantic differential design as being more sensitive in measuring both the type of response and the degree to which the response is experienced. The Library Anxiety Scale developed by Sharon L. Bostick and used in the Pearson study of library instruction and anxiety (Pearson 1993, 46-47) was not used because the questionnaire was two pages and 43 questions in length. Questionnaires for both the pre-test and the post-test in this study were limited to one page and were designed to take no longer than fifteen minutes to administer. In addition, the Bostick model scored on a Likert scale which asked subjects to rank how strongly they agreed or disagreed with statements about the library. Following the recommendations of Osgood, Suci, and Tannenbaum, the pre-test and post-test questionnaires for this study were set up as a series of controlled semantic relations between sets of bipolar phrases. Individuals answering a questionnaire chose a position among seven incremental distinctions that indicated direction and intensity (Osgood, Suci, and Tannenbaum 1971, 20). Thus, an individual's attitude can be defined by the location chosen with respect to a particular object on the test instrument (Fishbein 1975, 28).

The ultimate purpose of this study was to determine if the pre-session has any effect on students' attitudes, intentions, and feelings about 1) the library, 2) the librarian, 3) the use of and the

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intended use of the library, and 4) the library instruction class. In addition, the intention of the research design was to create results that were verifiable and could be replicated by other investigators with the results either proving consistent with the findings or proving to contradict the findings. Questions for the pre-test and post-test were devised in coordination with models created by Osgood, Suci, and Tannebaum. Each concept underlying a question represents a choice between two opposite alternatives (Osgood, Suci, and Tannebaum 1971, 26). The pre-test and post-test consisted of nine paired and correlated questions. Each question was formulated to measure the relationship between a phenomenon or concept related to one of the four areas mentioned above and a linguistic set of polarizing terms or phrases in order to determine if a difference existed between pre-test and post-test as a result of introducing the experimental design of the pre-session.

For example, if the intent of a question is to determine an individual's attitude or approach to research, then there is a measurement of a *concept* (The practice of research requires). A pair of opposites or *polarizing terms* express a particular attitude or an aspect of behavior (flexibility/constancy). An individual distinguishes the intensity and degree of the attitude or behavior by choosing a position on a scale that is coded and identified by a value from 1 to 7 as follows:

The practice of research requires

      (concept)

flexibility |___|___|___|___|___|___|___| constancy

(polarizing term X)   (7)   (6)   (5)   (4)   (3)   (2)   (1)   (polarizing term Y)

In pre-test and post-test questionnaires, the first term to the left was a positive attribute and valued at 7. The term to the right was a negative attribute and assigned a value of 1.

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The numbered scale positions are defined as:

(7)	*extremely* Y	(1)	*extremely* Y
(6)	*quite* X	(2)	*quite* Y
(5)	*slightly* X	(3)	*slightly* Y
(4)	*neither* X nor Y; or *equally* X and Y		

The scale given at the beginning of the questionnaires is then assumed to persist throughout the entire set of questions (Osgood, Suci, and Tannebaum 1971, 28-29).

Polarizing terms to describe each concept were selected carefully to provide extremes ranging in description from *very useful*, *always*, and *easy* at one end to *not useful at all*, *never*, and *difficult* at the other. The ordering of the concept scale of terms lists positive attributes first on all questions (*very useful, approachable, strong, essential*) followed by negative attributes (*not very useful, unapproachable, weak, not important at all*).

The nine questions on the pre-test and post-test questionnaires were ordered differently between the pre-test and the post-test. By ordering the questions one way on the pre-test and another way on the post-test, it was hoped that subjects answer each question more carefully because they would not assume the two tests were the same. Pairs of questions were arranged as follows (see Appendix A and B):

Pre-test Question 1   and   Post-test Question 1
Pre-test Question 2   and   Post-test Question 5
Pre-test Question 3   and   Post-test Question 8
Pre-test Question 4   and   Post-test Question 6
Pre-test Question 5   and   Post-test Question 9
Pre-test Question 6   and   Post-test Question 4
Pre-test Question 7   and   Post-test Question 3
Pre-test Question 8   and   Post-test Question 2
Pre-test Question 9   and   Post-test Question 7

All students were given the same test by a independent monitor who did not participate in any other

part of the study.

Limitations

Although the amount of research in the measurement of feelings, beliefs, and emotional responses in the field of psychology and education is extensive, very little research in the field of library science focuses on the affective needs of individuals using the library despite the recognized need as indicated by the research of Constance Mellon, Kuhlthau, and others. The affective realm is a complex area of human experience that extends to both conscious and unconscious states of emotions, attitudes, and beliefs. The impact of feelings and attitudes upon individual library users and their willingness and ability to learn requires extensive research in a variety of environments. Many of the limitation of this study concern the difficulty of designing an representative group of students and effective pre-test and post-test questionnaires.

The subjects at Southern Oregon State College represented a sampling of students taken from a population of freshmen students within an academic environment. Students may have been exposed to a larger library than they had previously experienced and one using a different classification system as well. Since the six classes comprising the sample groups were a relatively small sample, the data reflected the subjective responses of relatively small group that was not made up of a totally random population. However, because all students receive library instruction, all mean scores between the pre-tests and the post-tests are expected to improve because of the effects of instruction. What is the only measure to gage if the pre-session is responsible for a significant change is the difference of mean scores for the total sample.

Also, students participated in the study anonymously and were not identified individually

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on pre-test and post-tests. Consequently, data was analyzed as two sample groups rather than correlated pairs. Some attrition was expected between the administration of pre-test and post-test questionnaires. Because the subjects were not grouped as correlated pairs, there may have been a slight difference in group samples for the pre-tests and post-tests.

Although a number of alternatives were possible for measuring the effects of the pre-session, only nine questions were included in the questionnaire in order to minimize the amount of class time taken to administer pre-tests and post-tests. Having only nine questions limits not only the amount of information the survey can gather about the students' attitudes and feeling, but it limits the depth of the survey question as well. The questionnaire was designed to take no more than ten minutes to complete. Also, the questionnaire was limited to one page so as to achieve more thoughtful and accurate responses from the subjects. No indicators of reliability of individual test questions are available, so the validity of the questions is limited to the subjective expertise of the author.

The nature of administering testing supposes that students are informed of the study in order to grant permission. The results of this study may reflect attitudes that may have been affected by the students' participation in the study. An independent person was chosen to administer the pre-tests and post-tests to decrease the likelihood of maintaining objectivity, but some effect must be acknowledged. However, both the control group and the experimental group gave permission to be subjects in the study, so it is assumed that participation had similar effects on both group and was negligible.

Another limitation that could play an important role in this study is that students participating in the study may have had library instructions sessions in the past. Previous instruction could influence their overall impression of the instruction session as well as attitudes toward the library

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and the librarians. Previous experience with library instruction may cause some students to feel like they have already had instruction and are not as receptive as those students who have not been instructed in the use of the library. Question #5 of the pre-test will attempt to determine students' attitudes toward library instruction prior to receiving any instruction.

Outline of the Pre-session

The following outline was intended to provide each librarian with a general plan for the ten to twenty minute pre-session and functioned as a basic framework that could be adapted to the particular course, material, or intention of each individual librarian planning instruction. The outline was designed as a guideline to be used or adapted not only for the freshman composition classes tested in this study but for classes in any discipline and for any educational level as well. It was meant to be general and flexible enough to allow each librarian to adapt it to their own preferences, methodology, and teaching style. The outline was emailed to each librarian prior to their pre-session and adapted to meet the objectives of each librarian.

The four major components of the pre-session are: 1) Introduction; 2) Outline of Instruction Handout; 3) Needs Assessment; and 4) Closure. They are explained as follows:

Part 1: The Introduction

The first part of the pre-session is intended for the introduction to the librarian, the pre-session, and the class instruction during their next meeting. At this time, the librarian will concentrate a portion of instructional time on establishing a rapport with students by offering a very brief job description at the library and perhaps some of their own personal library background. The librarian clearly establishes the purpose of the reference librarian as offering assistance, instruction,

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and guidance. In addition, students are informed that reference librarians are available either at the reference desk or by appointment, so consultation with the librarians can be a regular component of comprehensive research. The key element of the introduction is for the librarian to demonstrate the willingness to initiate a congenial and collaborative relationship with students.

Part 2: The Handout

Librarians prepare their own outline based on what they will teach. The outline is meant to be just an outline. The simpler and more concise, the better. A sentence of explanation could be included in the outline if the librarian deems necessary, but explanations are to be kept brief and to a minimum. The intent is to summarize what will be covered during the library instruction and prepare students by giving them an idea of what they can expect during the library instruction class. In the preparation of the handout as well as the preparation of all aspects of library instruction, special attention is given to reducing anxiety and resistance in as much as that is possible.

Part 3: The Needs Assessment

The handout that outlines what will be taught is intended to assist the librarian in taking a needs assessment in the particular class. Using the handout to provide a framework for directing questions, the librarian determines the level of experience individuals within the class. Needs assessment is directed by what will be covered in the instruction session and is intended to determine how familiar the students are with 1) the methodology--how the class will be taught; 2) the sources--the materials, books, or guides students will use; and 3) the technology--to include any use of OPACs, electronic databases, or indexes that will be covered during instruction. Students who are not acquainted with the resources that will be used during instruction are encouraged to familiarize themselves prior to class session.

The final part of the needs assessment concentrates on getting students to prepare themselves to learn at least one new aspect of using the library. At the end of the library instruction session, students will know explicitly at least one element or aspect of the library or research process that they did not know prior to the session. The librarian asks the students to think about what would satisfy that requirement. In other words, the librarian assists the students to focus on what would make the instruction session meaningful to them personally.

Part 4: Closure

The librarian briefly reviews the most important points of the pre-session in an effort to end the session positively. The librarian encourages students to take full advantage of the instruction session by thinking about what they would like to learn and why attending the library instruction class would be beneficial to meeting their needs. Finally, the librarian ends the session and leaves students with the impression that the nature of research in the library is often a stressful event filled with uncertainty. To be successful, students need persistence, multiple approaches, and the willingness to work together with the librarians and the resources available in the library.

The Goals and Objectives of the Pre-session

Librarians were given a copy of the following overall goals for the pre-session:

1. Introduce the librarian and establish a general rapport with the students.

2. Ease students' anxiety and resistance by preparing them for instruction prior to their actual visit to the library.

3. Arouse the curiosity and interest of students by promoting what the instruction can do for them and what it can mean to them.

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4. Establish a positive and collegial atmosphere between librarian and students and librarian and instructor.

5. Allow the librarian to take some needs assessment of the individual class and get to know the specific needs of the class better.

6. Use the needs assessment to prepare and customize the instruction toward the particular class as much as possible.

Librarians were given a copy of the following overall objectives of the pre-session in the form that students will:

1. Know who the librarian giving their instruction is and what function the librarian has in the library and in reference.

2. Understand what their library instruction session will accomplish and why each individual student is attending the class because the students will have a clearer sense of what will occur in the instructional session.

3. Evaluate how much experience they have with using the library in relationship to the instruction that will be given in order to be prepared to learn.

4. List at least one aspect of their own personal research skill that they can try to improve.

5. Feel less anxious and more comfortable about attending an instructional class in the library.

6. Feel confident and willing to ask questions when necessary to fulfill their informational and research needs.

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CHAPTER 5

ANALYSIS OF DATA

The results of the pre-tests and post-tests administered to students who did not receive a pre-session prior to a library instruction were compared to the results of students who received a ten to twenty minute pre-session prior to a library instruction class. The difference of mean scores from pre-tests and post-tests of the control group--three classes of students who received no pre-session-- were compared to the difference of mean scores from pre-tests and post-tests of the experimental group--three classes of students who received the pre-session. As described in the Chapter 4 Methodology, the nine questions from the questionnaire measured students' attitudes, intentions, and behaviors about: 1) the library, 2) the librarian, 3) the use of and the intended use of the library, and 4) the library instruction classes. Presumably, students would score slightly higher on post-tests in both groups as a result of the library instruction class.

Raw scores were obtained based on a 1 to 7 scale using the semantic differential test as the instrument for devising the questionnaire. As indicated earlier, high raw score (7) indicated a positive response to the particular question, and a low raw score (1) indicated a negative response. Mean scores were first calculated on each pre-test question for the control group and each pre-test question for the experimental group. The same procedure was used to calculate post-test scores for each group. The t distribution was used to describe characteristics and establish confidence levels about the mean difference between pre-test and post-test scores due to the size of the sample groups. The results from a pooled variance t-test were analyzed to determine the F-ratio for variance. If the probability of the F-ratio for variance of a particular score was above the .05 threshold on the pooled variance t-test, then the results were recalculated using a separate variance t-test. All data was

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analyzed using *GB-STAT v.5.4.*

Overall Difference of Mean Scores

In examining the results of difference of mean scores between the no pre-session group and the pre-session group for all the questions combined, analysis reveals a significantly higher mean score for students who received the pre-session in comparison to the mean score for students who did not receive the pre-session (See Table 2). Difference of mean score for the pre-session group was .71 with a standard deviation of .31. The no pre-session group difference of mean score was.36 with a standard deviation of .34. The t-score was 2.28 with a probability score of .0461 indicating that the introduction of a pre-session prior to library instruction made a difference in the affective areas tested in this study. For each question, the difference of mean score was higher for pre-session group

Comparison of the Difference of Means Between the No Pre-session (Control) Group and the Pre-session (Experimental) Group		
	No Pre-session (Control)	**Pre-session (Experimental)**
Difference of x̄	.36	.71
Standard Deviation	.34	.31
t-score	2.28	
2-tail probability	.0461	

Table 1: Comparison of the Total Difference of Pre-test/Post-test Mean Scores

than the no pre-session group. The no pre-session group had an average increase between pre-test scores and post-test scores of less than a half of a point on a scale of 1 to 7. The pre-session group

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averaged an increase of more than a half point between pre-test and post-test scores.

	Pre-Session (Experimental) Group						
	Pre-test $\bar{x}$	Pre-test SD	Post-test $\bar{x}$	Post-test SD	Diff. of $\bar{x}$	t-score	prob.
Feel in Library (6,4)+	4.57	1.79	5.21	1.26	.64	-2.25	.0261*
Research Ability (4,6) +	5.31	1.63	6.09	1.15	.78	-3.01	.0032*
Library Skills (3,8)+	4.31	1.54	4.72	1.51	.41	-1.49	.1417
Librarian (7,3)+	5.68	1.40	5.86	1.25	.18	-.76	.4515
Consulting Librarian (2,5)+	5.08	1.81	6.04	1.31	.96	-3.31	.0012*
Intended Use (1,1)+	4.66	1.99	5.72	1.36	1.06	-3.37	.0010*
Finding Info. (9,7)+	4.38	1.64	5.07	1.37	.68	-2.51	.0139*
LI Class (5,9)+	4.69	1.51	5.25	1.21	.56	-2.24	.0269*
Attended to Needs (8,2)+	4.49	1.70	5.61	1.40	1.12	-4.00	.0001*

* Indicates a significant difference at the .05 level of significance
+ Indicates the question # on the pre-test and post-test questionnaire (see Appendix A and B)

Table 2: Difference of Means Between Pre-test/Post-test Questions for Pre-session (Experimental) Group

The results of the pre-session/experimental group are listed in Table 2. The results of the no

pre-session/control group are listed in Table 3. All of the figures in the tables are rounded off to the second decimal place except the 2-tail probability value which has been extended to four decimal places. The t-values are considered significant if the probability scores is below .05 level of significance.

No Pre-Session (Control) Group						
	Pre-test $\bar{x}$	Pre-test SD	Post-test $\bar{x}$	Post-test SD	Diff. of $\bar{x}$	t-score	prob.
Feel in Library (6,4)+	5.27	1.38	5.13	1.27	-.14	.55	.5853
Research Ability (4,6) +	5.38	1.45	5.91	1.22	.53	-2.10	.0387*
Library Skills (3,8)+	4.47	1.32	4.83	1.44	.36	-1.41	.1605
Librarian (7,3)+	5.52	1.41	5.57	1.33	.05	-.22	.8244
Consulting Librarian (2,5)+	4.83	2.00	5.56	1.49	.73	-2.17	.03.4*
Intended Use (1,1)+	4.57	1.79	5.54	1.36	.97	-3.24	.0016*
Finding Info. (9,7)+	4.75	1.48	4.96	1.47	.21	-.77	.4464
LI Class (5,9)+	4.63	1.76	4.98	1.32	.35	-1.18	.2387
Attended to Needs (8,2)+	5.30	1.29	5.50	1.55	.20	-.74	.4599

* Indicates a significant difference at the .05 level of significance
+ Indicates the question # on the pre-test and post-test questionnaire (see Appendix A and B)

**Table 3: Difference of Means Between Pre-test/Post-test Questions
for No Pre-session (Control) Group**

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The results show a correlation between the students affective state and receiving a pre-session prior to the instruction session. Given that both groups received virtually the same instruction, the findings seem to indicate that something more than a fifty minute session is necessary if instruction intends to meet affective objectives.

All students indicated that being able to conduct research in the library was essential as indicated by "Research Ability" (pre-test question #4, post-test question #6). Mean scores averaged above 5.3 on a scale of 1 to 7 for both groups on the pre-test. Students demonstrated a significant increase between pre-test and post-test scores for both groups. The difference of mean score was .53 with a probability of .0387 for the no pre-session group and .78 with a probability of .0032 for the pre-session group. Although students in the experimental group with the pre-session experienced a slightly higher increase as indicated by a higher difference of mean scores and a lower probability score than the no-session group, what seems to have been the real agent causing significant differences for both groups may have been the actual instruction session. The notion that library instruction resulted in students gaining a deeper understanding of the research process was not unexpected. Rather, the results indicated that library instruction sent a message to students that having the ability to conduct sound research may help them make sense of a world filled with information.

In assessing their library skills in comparison with others, students rated their own skills slightly stronger as indicated by the data about "Library Skills" (pre-test question #3, post-test question #8). Although there was a slight improvement in the mean scores for both groups in the post-test after the library instruction class, the difference was not significant. The no pre-session group scored .36 with a probability of .1605, and the pre-session group scored .41 with a probability

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of .1417 on a difference of mean analysis. Neither the pre-session nor the instruction session seemed to have an effect on students' perceptions. Both groups ranked their skill about the same on the post-test as they did on the pre-test. Perhaps, a likely explanation was that the students felt as though after the library instruction sessions, they still had much more to learn. Because self-actualization is integral to the affective realm, the students' perception of their skills might have been an indication of how effectively their needs for personal improvement and awareness were attended to by instructional classes. If the class did not meet their personal needs to improve specific skills, then the students' perceptions of their skills relative to others would not necessarily change.

One other possible explanation may have been that the librarian prepared the lesson in advance and made research seem easy for someone with the good research skills like a librarian. By preparing in advance, the librarian already struggled through the difficulties of the search process used as an example in class. As the results of this study seemed to indicate, the well-prepared lesson might actually do students a disservice. The "canned" lesson could have given the students the impression that the librarian was like a magician finding relevant information with ease, and, affectively speaking, the students might have felt that they were not even close to having the same research skills.

Perception about Librarians

Results revealed that all students felt librarians were approachable according to data about the "Librarian" (pre-test question #7, post-test question #3). After the library instruction class, neither the no pre-session nor the pre-session groups demonstrated a significant change in attitude. Difference of mean scores were similar from pre-test to post-test for both groups--.05 with a

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probability of .8244 for the no pre-session students and .18 with a probability of .4515 for the pre-session group. If a central purpose of instruction was to increase positive feelings towards librarians and make them seem more approachable and friendly, then neither the instruction nor the pre-session made a difference. The attitude of students after instruction seemed to indicate their feelings about the approachability of librarians did not change. Being that the scores were quite high in comparison to other scores on the pre-test for both groups, the findings could indicate that students already believed librarians are approachable. Even so, they might still choose not to approach a librarian for assistance because of other reasons such as the librarian was busy or unavailable. Others might not approach the librarian because they would rather do research themselves without assistance or because they do not know what question to ask. Under these circumstances, it is not an issue whether the librarian is approachable or unapproachable.

However, on the question "Consulting Librarian" (pre-test question #2, post-test question #5), all students indicated that they would be more likely to consult a librarian if they had a problem finding information after the library instruction class. The results revealed that scores improved significantly after the library instruction for both groups. The no-pression group had a difference of mean score of .73 with a probability of .0324, and the pre-session group had a difference of mean score of .96 with a probability of .0012. An objective of the library instruction session for both groups was to create rapport between the librarian and the students. In addition, librarians were to impress upon students that they should consult with a librarian when having difficulty in finding information. The difference of mean scores indicated that both the pre-session group and the no pre-session group successfully achieved the objective.

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In comparing pre-test and post-test results measuring the use of the library prior to library instruction with the students' intended future use "Intended Use" (pre-test question #1, post-test question #1), both groups generally used the library fairly often. After library instruction, difference of mean scores for both groups increased significantly from pre-test to post-test and seemed to indicate that in all likelihood these students would go to the library to find information more often after the library instruction session. Difference of mean score for the no pre-session group was .97 with a probability of .0016 and 1.06 with a probability of .0010 for the pre-session group. Intent, as addressed in the discussion of Fishbein and Azjen, is often indicative of behavior and increases the likelihood that students, after receiving the library instruction, would go to the library satisfy their future informational needs. However, there was no indication from these results that they would be more likely to use the library as a result of the pre-session.

Results indicated that students felt finding information was not very easy as indicated by "Finding Information" (pre-test question #9, post-test question #7). After instruction, the no pre-session students showed no significant increase in their perception of the difficulty they had finding information. The no pre-session group had a difference of mean score of .21 between pre-test and post-test with a probability of .4464. In contrast, the pre-session group indicated that finding information was somewhat easier after instruction having a difference of mean score of .68 with a probability of .0139. The difference of mean score for the pre-session group improved significantly and were a total of .68 higher than the no pre-session students.

Contrasting these results with the students' intent to use the library from the previous question "Intended Use," all students seemed more likely to use the library, but those students who

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received the pre-session believed that they would have an easier time of finding information. The reason could be because they felt better prepared and/or because they had a more positive attitude as a result of the pre-session. While all students seemed to understand that the library could satisfy their informational needs as a result of an instructional session at the library, only the pre-session group indicated a change in perception about being able to find information easier.

Library Instruction and Attending to the Needs of Students

In assessing attitudes about library instruction classes, "LI Class" (pre-test question #5, post-test question #9), students rated other library instruction they received prior to the current session as somewhat useful. Post-test scores of students in the pre-session group revealed that the library instruction class was perceived to be significantly more useful than previous classes. Scores for the no pre-session group demonstrated no significant difference in their attitude about how useful the library instruction class was for them. Difference of mean score for the no pre-session group was .35 with a probability of .2387 while the pre-session group scored .56 with a probability of .0269. The difference between the pre-session group and the no pre-session group might have been due to the extra instruction pre-session students received. But the difference might have been due to the needs assessment taken in the pre-session which allowed the librarian to discover what kinds of information needs were specific to that class. Consequently, students found the instruction that occurred at the library was more relevant and useful.

In addition, the pre-session gave students an opportunity to invest themselves in the instructional session by allowing them to communicate to the librarian what if any previous library experience they had and what the librarian could do to help improve their research skills. The

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librarian then was able to focus instruction specifically on what the students needed to know as opposed to what the instructor and librarian thought they needed to know. The difference was that students in the pre-session participated in the actively in the learning process. Consequently, those students had a clearer understanding of what would happen when they went to the library to attend the instructional class.

The "Attended to Needs" question, (pre-test question #8, post-test question #2), first measured students' perception of how difficult it would be in learning how to perform research. Those results were compared to how well the library class met their individual needs in teaching them how to perform research. The intent of the set of questions was to compare whether students felt learning about research was complex and therefore difficult or whether it was simple and therefore easy to learn. Often instruction can only administer to the students who understand the material and find learning simple or those who do not understand and find the learning process complex. The post-test question then gaged if the method of instruction attended to the needs of each individual with the result determining whether instruction met the needs of all students or only some.

The difference of mean score of the pre-session group demonstrated a significant difference between the pre-test and post-test--.1.12 with a probability of .0001 in comparison with the students not receiving the pre-session--.20 with a probability of .4599. Students who had a pre-session appeared to feel the overall instruction satisfied their needs. The results of the no pre-session group indicated very little change in the students perception of how well the class addressed what they thought they needed to know. On the other hand, scores from the pre-session group showed students perceived that library instruction attended to individual needs better after the pre-session. The reason could be because the librarian was able to prepare students more effectively.

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The results of the pre-test and post-test scores confirmed the hypothesis that the pre-session had an overall positive effect on the students' attitudes, beliefs, and intentions in conjunction with the library, the librarian, the intended use of the library, and library instruction classes. These findings point to the conclusion that library instruction could improve the affective realm influencing students' perceptions and behaviors within the context of the library if librarians visited the students' classroom prior to the instructional session.

CHAPTER 6

CONCLUSIONS

The results of this study support the hypothesis that a ten to twenty minute pre-session in the students' classroom prior to a regularly scheduled library instruction session will help librarians attend to the affective needs of students. The overall results of the comparison of pre-test and post-test scores demonstrated that students felt better about the library, the librarians, and the research in general when exposed to a pre-session. As indicated in the literature review, students using the library often experience negative attitudes that could complicate the learning process. Such negative attitudes can persist and even become more intense during library instruction. Incorporating objectives and methodologies that address affective needs may help students overcome initial feelings of inadequacy, anxiety, and tension.

In the field of librarianship, instructional theory has often been divided into "two broad traditions: the behavioral theories and the cognitive theories" (Arp 1993, 5). Behavioral objectives address planning and measuring changes in performance which are then attributed to learning. Cognitive objectives focus on the conceptual relationships between accumulated knowledge. But neither theory addresses the affective domain. Well-intentioned instruction often aims at the students' stage of cognitive development (McNeer 1991, 294) or defines specific knowledge, skills, or behaviors that students will display under a given condition (Downing, MacAdam, and Nichols 1993, 86). However, students' feelings and attitudes help establish their receptiveness to instruction or learner readiness.

With the increase in technological developments and new sources available to students, librarians are rarely at a loss for material to fill the informational gaps of the students. Often this

translates into librarians thrusting more information into the limited space of the fifty minute session in an effort to develop independent library users. However, additional information taught within the constraints of a limited one-shot environment is not likely to reduce anxiety levels. Rather, the situation is more likely to achieve the opposite results, causing increased anxiety and further alienating individuals from the library and the information they seek.

Offering students a single fifty minute instruction session may not be the most effective method if instruction is to be useful to students and address their individual needs. A pre-session may provide an opportunity for librarians to listen to their students to discover what they need to know and to prepare the foundation of a sound instructional session. The results of this study indicated pre-session students generally were better prepared for instruction and thus more likely to feel the instruction was relevant to their individual needs. In addition, students given a pre-session prior to library instruction had a sense that the library was a more friendly environment and finding information was easier.

As this study unfolded, one major drawback of employing a pre-session prior to the regular library instruction session that appeared was that some instructors might not want to give up additional class time for a pre-session. However, an argument in favor of a pre-session pointed out that "left to their own devices, students will borrow a book or two and write their paper with often outdated and inappropriate material" (Tiefel 1983, 25). The logical solution to this potential problem would be the establishment of a strong cohesive partnership between faculty and librarians who carry on the task of instruction as colleagues. In the process of obtaining permission to go to the instructor's classroom to conduct the pre-session for this study, a more collaborative relationship seemed to develop between the librarian and the instructor. One librarian reported that she was asked

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to do an additional session to offer further insight and assistance to students after they began their research projects.

Library instruction has been integrating active learning and critical thinking processes into the teaching process and shifting away from tool or resource-based instruction to "interactive, access-based" approaches that involve the individual and place more emphasis on specific needs (Nahl-Jacobovits and Jacobovits 1993, 73). Consequently, teaching the processes necessary to research--from determining subject headings and descriptors to choosing the most appropriate citations from large retrieval sets--has become an integral component of library instruction. It has evolved into a cooperative effort with the students that places the librarian in the role of organizer and facilitator without the traditional control and authority of a teacher. In order to achieve an informal and friendly environment which poses little threat for experimenting and making incorrect choices and judgment, librarians must establish a rapport and a sense of trust with students encouraging them to participate freely in the process of instruction. The library instruction classroom could become an environment in which students can no longer passively listen to lectures and instructions. They will take an active role and become responsible for not only their own and each other's learning but for that of the librarian leading the class as well (Sheridan 1990, 25). Creating such a climate in the library classroom is difficult at best in a one-shot, fifty minute session. It may require something more that perhaps a pre-session will be able to provide.

The findings of this study suggest that pre-sessions improve the affective experience students have in the library. Overall, students who received a pre-session in their classroom prior to their library instruction showed significantly more positive attitudes towards the library, the librarian, and the library instruction class than the students who only had a single fifty minute instructional session.

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Specifically, the students with the pre-session showed a significant increase in positive attitudes, intentions, and feelings between the pre-test and the post-test on seven of the nine questions while students without the pre-session showed a significant increase on only three of the nine questions. These result indicate that pre-sessions may, in fact, help create positive attitudes that contribute to effective library instruction. As such, the use of pre-sessions merits serious consideration as a method of attending to the affective and ultimately the informational needs of students.

APPENDIX A

PRE-TEST

Kent
STATE UNIVERSITY

Re: Library Instruction: Affecting Change in the Classroom

Dear Student:

I am a graduate student in the School of Library and Information Science at Kent State University. As a part of the requirements of my masters program, I am conducting a study to measure the effects of different methodologies on library instruction. The study will be useful for librarians and instructors in the development and improvement of library instruction for students.

As part of the research, you will be given two questionnaires, one at this time and another in about a week. Some of you may also receive additional instruction during class time. I would appreciate it if you would take a few minutes to complete the attached questionnaire and give it to the person administering the test.

Please do not write or sign your name to the letter or the questionnaire. Confidentiality and anonymity are guaranteed as you do not need to sign your name to the individual forms, and only the investigator will have access to the actual responses.

There is no penalty of any kind if you should choose to not participate in this study or if you should choose to withdraw from participation at any time. If you are under eighteen, please do not answer any questions. If you choose not to participate for any reason or cannot participate because you are under eighteen, hand in a blank questionnaire to the administrator.

If you have any questions, please contact me at (330) 678-6790 or Dr. Allyson Carlyle, my research advisor at (330) 672-2782. If you have any questions about the rules for research at Kent State University, please contact Dr. M. Thomas Jones at (330) 672-2851.

I would like to thank you in advance for your time and your participation in this research project.

Sincerely,

Dale J. Vidmar

Dale J. Vidmar
Graduate Student
School of Library and Information Science
Kent State University
Kent, OH 44240-0001

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Please respond to the best of your ability to each item by marking the block which most accurately represents your opinion. The statements are not related to each other, so please respond to each question individually. There are no correct or incorrect answers--your first impression is important. Please do not sign your name on this form.

The following is an example:

Eg. The practice of research requires

flexibility |_X__|____|____|____|____|____|____|____| constancy

1. To find information, I generally use the library

often |____|____|____|____|____|____|____|____| rarely

2. If I am having difficulty finding information in the library, I consult the reference librarian

always |____|____|____|____|____|____|____|____| never

3. In comparison with other people, my research skills are

strong |____|____|____|____|____|____|____|____| weak

4. For me, being able to conduct research in the library is

essential |____|____|____|____|____|____|____|____| not important at all

5. In my experience, classes taught by librarians about using the library are

very useful |____|____|____|____|____|____|____|____| not useful at all

6. When I go to the library, I generally feel

relaxed |____|____|____|____|____|____|____|____| tense

7. The librarians are generally

approachable |____|____|____|____|____|____|____|____| unapproachable

8. In my past, learning how to do research in the library has been

simple |____|____|____|____|____|____|____|____| complex

9. Finding information in the library is

easy |____|____|____|____|____|____|____|____| difficult

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APPENDIX B

POST-TEST

School of Library and Information Science
(216) 672-2782
Fax 216-672-7965

P. O. Box 5190, Kent, Ohio 44242-0001

Kent
STATE UNIVERSITY

Re:Library Instruction: Affecting Change in the Classroom

Dear Student:

The following questionnaire is the second part of the research I am conducting to measure the effects of different methodologies on library instruction as a part of my masters program in the School of Library and Information Science at Kent State University.

I would appreciate it if you would take a few minutes to complete the attached questionnaire and give it to the person administering the test. Please do not write or sign your name to the letter or the questionnaire. Confidentiality and anonymity are guaranteed as you do not need to sign your name to the individual forms, and only the investigator will have access to the actual responses.

There is no penalty of any kind if you should choose to not participate in this study or complete the questionnaire. If you are under eighteen, please do not answer any questions. If you choose not to participate for any reason or cannot participate because you are under eighteen, hand in a blank questionnaire to the administrator.

If you have any questions, please contact me at (330)678-6790 or Dr. Allyson Carlyle, my research advisor at (330)672-2782. If you have any questions about the rules for research at Kent State University, please contact Dr. M. Thomas Jones at (330) 672-2851.

I would like to thank you again for your time and your participation in this research project.

Sincerely,

Dale J. Vidmar
Graduate Student
School of Library and Information Science
Kent State University
Kent, OH 44240-0001

Please respond to the best of your ability to each item by marking the block which most accurately represents your opinion. The statements are not related to each other, so please respond to each question individually. There are no correct or incorrect answers--your first impression is important.

The following is an example:

Eg. The practice of research requires

flexibility |_X_|____|____|____|____|____|____|____| constancy

1. The library is a place I would go to find information

often |____|____|____|____|____|____|____|____| rarely

2. The library instruction class attended to my personal research needs and problems

completely |____|____|____|____|____|____|____|____| not at all

3. Librarians are generally

approachable |____|____|____|____|____|____|____|____| unapproachable

4. When I am using the library, I generally feel

relaxed |____|____|____|____|____|____|____|____| tense

5. If I have a problem finding information, I would consult the reference librarian

always |____|____|____|____|____|____|____|____| never

6. To me, having the ability to conduct research in the library is

essential |____|____|____|____|____|____|____|____| not important at all

7. Finding information in the library is

easy |____|____|____|____|____|____|____|____| difficult

8. In comparison with others, my research skills are

strong |____|____|____|____|____|____|____|____| weak

9. Based on my experience, the class taught by the librarian about using the library was

useful |____|____|____|____|____|____|____|____| not useful at all

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