A COMPARISON OF BIBLIOGRAPHIC INSTRUCTION
METHODS ON CD-ROM DATABASES

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

Doctor of Philosophy

By

Dorothy F. Davis, B.S., M.L.S.
Denton, Texas
May, 1992
CD-ROM database systems are now a familiar sight in libraries of all types and sizes. Reference librarians have found that many patrons do need some type of instruction in order to effectively utilize CD-ROM databases. The purpose of this study was to compare four different methods of bibliographic instruction in order to determine which method would have the most effect on student learning. In this study, 120 students were given instruction on searching the PsycLit CD-ROM database. The students were divided into four groups, and each group was given a different method of instruction. The four methods of instruction were lecture, lecture utilizing an LCD, video, and computer-assisted instruction. The statistical technique used to perform the data analysis for this study was the one-way analysis of variance to test the significance levels among the groups. The t test was used to compare differences between the different groups. Seven hypotheses were tested at the 0.05 level of significance. The fifth null hypothesis tested in this study was rejected while the other six hypotheses were accepted. This indicated that the video method of
instruction was more effective in teaching students to search the PsycLit CD-ROM database system than the lecture method. Recommendations for future study include replication at other academic libraries, comparison of students with and without computer experience, and the use of videos to teach the use of other library sources.
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CHAPTER I

INTRODUCTION TO THE STUDY

Bibliographic instruction, or library instruction as it is sometimes called, can be defined as the process used by the library staff to teach library users to locate and use library resources. These resources range from books, catalogs, and indexes to the more sophisticated technology of online databases and CD-ROM databases. The goals of bibliographic instruction are centered around the objective, "To help users locate information effectively and efficiently" (Roberts 1982, 3).

In recent years, the library profession has seen a surge of growth in the interest in bibliographic instruction. The rapid changes in technology now require people to acquire new skills and to have access to more information faster than ever before. The terms, "Information Revolution" and "Information Age," have been tossed about in the professional literature for some time. Librarians must now realize that this is the "Information Age." Libraries, as the centers for this vast amount of information, are continuing to grow in volume and complexity. Library users are frequently overwhelmed and intimidated by the number of information sources and their complexity and by the variety
of formats and methods used to retrieve information. Since 1989, three reports have emphasized the need for "information literate people . . . those who have learned how to learn" (Brottman and Loe 1990). They are Final Report of the American Association Presidential Committee on Information Literacy, The Nation's Report Card: Crossroads in American Education: A Summary of Findings, and Critical Thinking: Theory, Research, Practice, and Possibilities. These reports define information literate as a person who is "able to recognize when information is needed and has the ability to locate, evaluate, and use effectively the needed information" (Brottman and Loe 1990, 6). These reports draw attention to the need for librarians to develop more effective instructional programs that will enable users to become independent in the information retrieval process.

The need for library instruction is supported fully by the American Library Association. The ALA Policy Manual, 52.6, Instruction in the Use of Libraries states:

In order to assist individuals in the independent information retrieval process basic to daily living in a democratic society, the American Library Association encourages all libraries to include instruction in the use of libraries as one of the primary goals of service. Libraries of all types share the responsibility to educate users in successful information location, beginning with their childhood years and continuing the education process through their years of professional and personal growth. (Surprenant 1979, 3)

The idea of library instruction is not revolutionary. It has been practiced in libraries dating back to the nineteenth century. In 1982 Anne Roberts traced
library instruction back to the periods of 1876 and 1910 when there was an interest in user education, and institutions began to offer library instruction as credit courses (Surprenant 1979, 3). Library instruction was also a point of discussion in American library literature when President Barnard of Columbia University, in his annual report for 1883, wrote:

The average college student . . . is ignorant of the greater part of the bibliographic apparatus which the skilled librarian has in hourly use to enable him to answer the thousand queries of the public. A little systematic instruction would so start our students in the right methods, that for the rest of their lives all their work in libraries would be more expeditiously accomplished . . . . In fact, it is hardly an exaggeration to say that now students often spend half their time in the library finding out what they don't know, and the remaining half in getting confused notions of what they do want to know. (Brottman and Loe 1990, 6)

There has been a steady growth of interest in library instruction since Barnard's time. The number of library literature citations for library or bibliographic instruction was 350 for the years of 1876 to 1920. This number doubled from 1920 to 1957 with 750 articles listed in Library Literature, and it tripled from 1966 to 1972 (Mensching 1989, 5). This growth has continued at a rapid pace in the past few years. It has spurred two national organizations to develop a section and a round table devoted to library instruction. The Library Instruction Round Table, known as LIRT, of the American Library Association provides a means of communication for bibliographic
instruction librarians. The Bibliographic Instruction Section, BIS, is the largest of the fourteen sections of the American College and Research Libraries Association. The Library Orientation/Instruction Exchange, known as LOEX, has also been developed along with a newsletter. LOEX operates as a clearinghouse of bibliographic instruction materials, serves as a referral service for bibliographic instruction librarians, and publishes the LOEX Newsletter.

With the vast amount of information available today, there should be no difficulty in selecting a method of instruction that is effective. There are, however, numerous considerations in selecting the method of instruction to use in bibliographic instruction such as size of audience, time available for instruction, level of instruction, and time and cost in planning and revising materials. The methods used can also be affected by people other than librarians. Administrators tend to consider cost effectiveness, staff preparation time, and public relations. Staff members consider time constraints, objectives, and scheduling. Users prefer methods that are easy, efficient, and accessible.

LOEX reports an increase in the bibliographic instruction literature as well as a growth in programs in their 1987 survey. The institutions of higher education, requiring some type of bibliographic instruction, grew from 24 percent in 1979 to 65 percent in 1987.
The tour, or course-related session, is the most popular method of bibliographic instruction from institutions responding to the LOEX survey (Mensching 1989, 4). Other bibliographic instruction methods used in higher education in recent years consist of course-related and orientation lectures, point-of-use programs, and conducted tours or group instruction. Some less popular methods used are audiotapes, videotapes, computer-assisted instruction, slide tape tours, and term paper clinics.

Today, librarians are faced with the following questions: (1) Which methods of bibliographic instruction are the most effective? (2) Which methods of bibliographic instruction are best suited for the different types of resources? Farber, in her 1990 LIRT article, states:

In many ways our society is rapidly becoming—if, indeed, it's not already become—an information-based one. In such a society success or failure will increasingly be measured in terms of one's ability to find, organize, and use information. (Brottman and Loe 1990, 3)

With the technological advances in libraries today, librarians must examine these technologies and evaluate the methods of instruction that will better prepare users to become information literate. Of all the technologies introduced to libraries in past years, few have had more impact on libraries than has the CD-ROM.

CD-ROM technology, developed in 1980 by Sony and Philips, was introduced to libraries in 1986. This technology was readily accepted by patrons. There are many
advantages of CD-ROMs. According to Steven Zink's 1990 article:

The chief advantage of the CD-ROM information product is obvious—a CD-ROM product provides information faster and offers the user a wider variety of search options than is available through any printed reference materials. (Zink 1990, 8)

Another impressive advantage of the CD-ROM is the tremendous data storage capacity with one disk storage equivalent to 550 megabytes. CD-ROMs allow a library to have an in-house database that requires only an annual subscription fee which is considerably less than an hourly rate of most online database services. Many libraries offer searching on CD-ROM free of charge for all patrons. Another advantage includes the durability factor—with the optical disks being coated to protect them from dust, magnetic fields, and fingerprints.

There is also the user acceptance of this media which has a great influence on librarians to purchase them. In a 1988 Online article, one patron is quoted as describing CD-ROMs as the "greatest time saver since the washing machine" (Silver 1988). In a survey conducted at Oakland University, 83 percent of the students surveyed felt that CD-ROMs saved time, and 85 percent of the students indicated that they preferred CD-ROM over paper indexes. Sixty-six percent of this group also indicated that they would wait for the CD-ROM to become free instead of using a paper index.
CD-ROM systems are now a familiar sight in libraries of all types and sizes. Publishers advertise them to be "user-friendly" and "needs little or no instruction," but an overwhelming number of reference librarians do not find this claim to be true. The Hahnemann study found:

Almost immediately upon installation of CD-ROM, the number of reference questions increased. After a three-month period, reference assistance was up twenty percent. (Silver 1988, 63)

There are problems with this technology that has created a renewed interest in library instruction and the methods used for this instruction. Since their introduction into libraries, it has been found that users require assistance to complete a search even after having group library instruction. Zink states: "Perhaps the greatest impact of CD-ROM in a library is the workload for the public service staff in whose area the CD-ROM is located" (Zink 1990, 54).

Librarians are now faced with the dilemma of providing instruction to individuals as well as large groups of users and the added demand on the reference desk staff. This problem could be solved if the methods of instruction were more effective.

Statement of the Problem

The problem of this study was to determine the effect different methods of bibliographic instruction would have on students' ability to search CD-ROM database systems.
Purpose of the Study

The purpose of this study was to compare four different methods of bibliographic instruction utilized to teach students the use of CD-ROM database systems in order to determine which method would have the most effect on student learning.

Significance of the Study

The introduction of CD-ROMs to libraries has created more demand for library instruction and reference assistance. A 1987 survey conducted at Hahnemann Library states: "Only 4 percent of our respondents were able to learn the systems without reference to documentation or to third-party assistance" (Silver 1988, 63).

This same survey also found that 31 percent of all reference questions for the first quarter of 1987 involved CD-ROMs. With the added demand of assistance at the reference desk that has been created by the CD-ROM systems, the library community must provide effective instruction in order to promote use that is more effective in retrieving needed information by the users.

Providing effective user instruction involves the evaluation of different methods in order to determine which methods are the most effective for different types of users in different types of settings—whether it is with groups or
with individuals. The ultimate goal of library instruction should be to provide a variety of methods and to allow the user to select the method that is best suited to the user's needs.

The significance of this study is that it compares four different methods of instruction used to teach students to search the PsycLIT CD-ROM system. The fact that the video method of instruction can be used with groups or individuals makes it a most desirable teaching method. Also, at this time no other studies have been conducted which compare library video instruction to other methods of library instruction. CD-ROM systems are still so new that there have been only a few studies conducted at this time which involve user instruction. There are no other studies that compare four methods of library instruction on CD-ROM systems. These facts make this study unique.

Limitations of the Study

This study was limited to students enrolled in freshman and sophomore classes and to the use of CD-ROM systems. It was conducted during the 1991 Fall semester at Southeastern Oklahoma State University. The results can only be generalized for groups of similar composition and can only be generalized for this material format. The composition of the groups should consist of similar library and computer experience.
This was a relatively homogeneous group consisting of approximately 49 percent male and 51 percent female students. The average ACT Enhanced scores of this group were approximately a 19 for females and 20 for males. The average age of this group was approximately 26.3 with 91 percent being in-state residents. The racial classification of this group was approximately 63.8 percent White, 28.7 percent Indian, 4.1 percent Black, 2.1 percent International, .7 percent Asian, and .6 percent Hispanic.

Assumptions of the Study

This study was based on several assumptions. The first assumption was that the use of the questionnaire, to evaluate student library and computer experience, would provide a homogeneous group. Secondly, a random sample of groups was achieved by allowing the students to volunteer for the desired times for the instruction. The students did not know in advance which method of instruction was being given at the designated times. This sampling method, although it is not a true random sample, is superior to groups of classes already formed. The researcher felt that these groups would give experimental control eliminating bias to the study and would provide adequate control of individual differences among groups. The third assumption was that, by the researcher administering the instruction, the assignment and evaluation of all groups provided adequate control of extraneous factors. The fourth
assumption was that the time limit of twenty minutes did not bias the study because in the trial groups the average time of completion was twenty minutes. The final assumption was that if users learn to use one CD-ROM system they will be able to use another with little or no difficulty.

Research Questions

1. Which method of bibliographic instruction is the most effective for students learning to search CD-ROM systems?

2. Which method of bibliographic instruction is best suited for the CD-ROM format?

3. Which method of bibliographic instruction is best suited for individual users of CD-ROM systems?

4. Which method of bibliographic instruction is best suited for group instruction of CD-ROM systems?

Definition of Terms

Boolean logic - a method of logic which uses the logical operators AND, OR, NOT to show relationships between sets or terms used in developing search strategies.

CD-ROM - "Compact Disc Read Only Memory" are 4.75 optical discs storing up to 650 megabytes of data.

Computer-Assisted Instructional Tutorial - instruction delivered through the aid of a computer-programmed lesson.

Function Keys - Keys F1 through F10 on the IBM keyboard. The SilverPlatter software package used with the PsycLIT system assigns each one of these keys a different
operation. The user may press any of these keys to perform a desired operation, such as F6 for printing records.

Liquid crystal display panel (LCD) - equipment attached to a computer and an overhead projector which will transmit the computer screen to a projection screen.

Marked records - an operation that allows PsycLIT users to select a record to be printed as they browse the retrieved records.

Online database - the state of being in direct, immediate communication with the computer that contains a collection of data in machine-readable form.

Search strategy - a plan of action for accessing a database and retrieving the desired term.

Overview of Remaining Chapters

Chapter II consists of a related literature review, including dissertations and studies, covering comparisons of bibliographic instruction methods, and CD-ROM uses, acceptance, and instruction. Chapter III consists of the methods and procedures used in conducting the study. The analysis of data is presented in Chapter IV. Chapter V presents the summary of findings, conclusion, and recommendations of the study. Appendices and the general bibliography follow Chapter V.
CHAPTER BIBLIOGRAPHY


CHAPTER II
REVIEW OF LITERATURE

This literature review includes dissertations and studies covering bibliographic instruction in general, comparisons of different methods of bibliographic instruction, video instruction, and CD-ROM uses and acceptance.

General Bibliographic Instruction

There is one study that covers bibliographic instruction in general that needs discussion. It is a 1987 survey that compares data on another survey conducted in 1979. Both of these surveys were conducted by Teresa Mensching, Director of the LOEX Clearinghouse. U. S. academic libraries were surveyed to determine which type of instructional method and material was used in bibliographic instruction. The survey showed a significant increase in bibliographic instruction programs from 1979 to 1987. Lectures, point-of-use programs, conducted tours, and individualized instruction were the most popular methods of instruction reported. There was an increase in the use of videotape and audio tape instruction. The survey showed an increase of printed materials such as bibliographies, guides, and workbooks used for bibliographic instruction. Evaluations of the effectiveness of library bibliographic
instruction programs also showed an increase of 16 percent since 1979. This study, however, was found useful only in that it shows current trends in bibliographic instruction.

Dissertations

There are six dissertations on the topic of bibliographic instruction which compare methods used in the instruction process. The first dissertation was conducted in 1965 by Marina E. Axeen. Axeen conducted an experimental study at the University of Illinois for three semesters from 1965 to 1967 using the computer-assisted-instruction program, PLATO. The hypothesis for this study stated, "Undergraduate students taught to use an academic library with CAI would learn as much, in less time and with less instructional assistance, than students taught by the lecture method" (Axeen 1965). Undergraduates, at all levels, were represented in the study and were compared for GPA scores with no significant difference being found. The Feagley Library Orientation Test for College Freshmen was used as the pretest and the post-test. A questionnaire was used to evaluate the student's attitude concerning the instruction with a Likert-type scale used to rank responses.

An analysis of variance was used to compare the pretest and post-test results with no significant difference being found. A t test was used to determine if there was any difference between the two groups based on mean gains per class hour. The experimental group was found to have
significantly higher average points gained per class. The attitude questionnaire reflected positive attitudes by the majority of the students. The CAI was preferred by 59 percent of the students over the lecture method.

Thomas T. Surprenant's 1979 dissertation compared the lecture method of bibliographic instruction to a programmed text in teaching freshmen students in four universities. Surprenant used lecture as the control group and tested the groups at the 0.05 significance level for student achievement level of learning, application of learning, and attitude or preference of method. The findings indicated that all three areas tested for achievement were not found to make any significant difference. This study is important because it can be used as a model for future studies.

In 1982, Donna L. Whitson conducted an experimental study with 125 undergraduates comparing three types of bibliographic instruction methods: lecture, microcomputer, and a programmed text using achievement and attitude as dependent variables. Whitson used the three methods to teach the groups to use Psychological Abstracts and gave an attitude survey after each treatment. Her study did not show any significant difference for achievement in any of the treatments, but students using the microcomputer had a more positive attitude toward this type of instructional method.
Curtis E. Fawson, in 1984, conducted a study using undergraduate English Composition students. A control group received no instruction while one group received computer-assisted instruction, and a third group used a self-instructional workbook. The instruction covered search strategies of online catalogs and online databases. The different methods were tested for accuracy, ease of use, time, and student attitude. Fawson concluded that the students receiving the computer-assisted instruction method had a more positive attitude concerning research than did the other groups. The self-instruction workbook group was the most effective method for the time factor, and the computer-assisted instruction group showed a significantly higher level of accuracy than did the other two groups.

Mary Ann Reddy's 1988 study is the most recent dissertation. In her study, Reddy used computer-assisted instruction and traditional lecture to compare the effects the different methods would have on achievement and attitude on ninth-grade students. The two groups were given instruction on the CD-ROM version of Reader's Guide to Periodical Literature. The results showed no significant difference in the learning of the students, but the attitude survey revealed that the lecture group was more enthusiastic than the computer-assisted instruction group. In this study
the research revealed that there were some factors that could have influenced the outcome of the study. The first was the fact that 68 percent of her computer-assisted instruction group was female. The second factor was the problem with the class schedules. Lessons were sometimes interrupted which could have interfered with the students' concentration.

In 1987, Sickler used three treatments in her study to determine the effect different types of feedback would have on student achievement. Randomly assigned to three different groups, students were given: (1) traditional lecture with oral questioning and feedback (2) CAI with simple knowledge of correct response feedback and (3) CAI with elaborate informative/instructional feedback. The bibliographic instruction covered search strategy and the use of scientific research sources. The scores on a post-test were analyzed by an analysis of variance showing no significant difference. The results of this study indicate that CAI can be of benefit to libraries as an individualized instructional method.

Studies

Thomas G. Kirk used lecture/demonstration and guided exercise to teach library skills to biology students at Earlham College. Kirk compared the results of an essay test and a five-hour literature search covering basic library tools, basic scientific tools such as Science Citation Index
and Biological Abstracts, and literature search strategies. No significant differences were found between the scores of the two tests in the study. Kirk expected the guided exercise to be a more effective means of instruction; however, he still concluded that he would prefer the guided method because of its flexibility and also because it helps alleviate the physical burden on the library's collection.

Stephen W. Zsiray used three different methods of instruction to compare effectiveness of teaching library skills. Eighth-grade students were given instruction in the use of Abridged Reader's Guide to Periodical Literature. Three groups were randomly selected for the instruction which included microcomputer-based, lecture, and independent reading. The microcomputer instruction gave information, asked questions, and then reviewed. It took an average of 25 minutes to complete, and students were allowed to review if they so desired. The lecture group was given a handout, and the lecture covered explanations of the source and examples of searches. The independent reading group was given an H. W. Wilson Company-produced guide. The guide consisted of examples of entries and exercises in searching the index.

A post-test was administered to all groups to determine the effectiveness of the instruction. A one-way analysis of variance was used to analyze the data. The results indicated that there was no difference in the
effectiveness of the lecture and micro-computer instruction. The results did indicate that both the lecture and the micro-computer instruction were more effective than the independent reading instruction. The researchers concluded that the independent reading method had a lower rate of effectiveness because the group did not have the opportunity for feedback.

Video Instruction

Several studies have been conducted using video as the instructional method in comparison to another type of instruction. Professor Dutton, of the University of Illinois at Urbana-Champaign, compared video instruction of off-campus students to live presentations of on-campus students. The contents of the presentations were identical. The study was conducted for two semesters. One semester the course was taught by live presentation, and the next semester it was taught by video. Students in both groups evaluated the instruction using a standard course evaluation form. The off-campus groups rated the video instruction lower than the live presentation in only one out of sixteen questions. The off-campus group's quality of work, motivation, and acceptance of the instruction were all excellent. The researcher concluded:

Comparing live and videotape presentations of a graduate mechanical engineering course using virtually identical class materials and scheduled demonstrations,
very little decline in instructional quality occurs using the videotape format. (Dutton 1988, 246)

In a pilot project at Iowa State University, videotapes were used to improve the effectiveness of instruction and the attitude of students toward the library. A set of four videos was produced by the library committee covering a mini tour, locating books, the reference area, and indexing services. The video instruction was supplemented with worksheets and an instructor was present at each session. The following semester the videotapes were shown without the supplemental instructor. Both groups were tested at the end of the session for achievement and were also given an attitude survey. Ninety-one and four-tenths percent of the supplemental instruction group received a satisfactory grade while 89.9 percent of the non-supplemental instruction received a satisfactory grade.

The attitude survey indicated that students had a positive attitude regarding the library and the instruction. The researchers suggest that using videotapes for undergraduate library instruction sparks enthusiasm (Jacobson and Albright 1983).

A study conducted at Indiana State University compared three methods of instruction used to attract students to use the library's online catalog. The instructional methods included: (1) a large-screen video projection system, (2) video projection through two
monitors, and (3) overhead transparencies. Students were tested on the use of the system and given an attitude survey at the end of each instructional session. Through the use of a one-way analysis of variance, there was a significant difference found between both the video projection group and the overhead transparency group. Both of the video projection groups scored significantly higher in the post-test than did the overhead transparency group. The attitude survey indicated that students preferred the video instruction over the transparency instruction. These researchers suggest that since the video method is preferred by students it will be a more effective means of instruction (Davis and others 1989).

Deborah Reeve used interactive video instruction in a study conducted in 1988 to compare the effects different instructional methods had on achievement and artistic expression of third-grade students. Traditional classroom instruction, computer-assisted instruction, and interactive video were used to teach fundamental art concepts and artistic expression. Using a pretest and post-test, all three groups showed a significant increase in their knowledge of art, but the interactive video showed a much greater increase. The interactive video instruction, however, showed no significant difference in effect on artistic expression while both of the other methods showed a significant increase. This was the only dissertation
covering interactive video instruction; however, there are a few other studies. In this study the researcher suggested that interactive video was an expensive method of instruction. This fact could account for its scarcity of use.

Diana Laurillard (1984) suggest that interactive video has great potential because it brings together an expository medium and an interactive medium. With this thought in mind, Laurillard designed an interactive video unit using material that had already been evaluated for effectiveness as a twenty-five minute television program and a twenty page text with diagrams and exercises.

The program had a sequential structure; therefore, it could be converted to self-contained instruction and sequences with exercises integrated into the program. The students in this study were given a pretest and post-test to evaluate the effectiveness of the instructional design. An attitude survey was also used to evaluate student tolerance of search time, control of mode, and acceptance of the medium. The researcher in this study had inconclusive data due to the small number of students used in the study. The student attitude survey, however, did indicate acceptance as the researcher had predicted.

CD-ROM Uses And Acceptance

CD-ROMs were introduced to libraries just a few years ago and have had a dramatic impact. A 1988 report
indicated that almost one-third of all libraries in the United States had at least one CD-ROM computer drive. (Silver 1988) This technology is still so new that only a few studies have been conducted to date.

Belanger and Hoffman (1990) investigated some of the factors associated with the frequency of use of the ERIC CD-ROM. Gender, age, level of familiarity with computers, and level of study were used to compare the frequency of use at Concordia University. The findings of this study showed a correlation between the frequency of use and the level of familiarity for women only. The study also showed that 82 percent of the students who had used the ERIC CD-ROM one time would use it again. The findings were not significant in comparing frequency of use and level of study. The study is important because it should enable libraries to concentrate their bibliographic instruction efforts only on students who need it most.

Schultz and Salomon (1990) conducted a survey at Oakland University on the end-user response to CD-ROMs. Their study covered ERIC, PsycLIT, and Business Periodicals Index. The study showed an overwhelming acceptance of CD-ROM systems by students. Eighty-three percent of the students surveyed felt that CD-ROM indexes saved them time. Eighty-five percent chose CD-ROM indexes over paper indexes. This study will assist librarians in making decisions
concerning the purchase and selection of CD-ROM indexes as well as instruction strategies.

Since publishers advertise CD-ROM databases to be "basically self-explanatory" and "need to do little or no training," the reference staff at Plymouth State College subscribed to the ERIC and PsycLIT in the Spring of 1988 without planning any type of bibliographic instruction programs. By the end of the summer, the reference statistics showed a decrease in online searches and a tremendous increase in reference desk questions. The CD-ROM systems were requiring one-on-one instruction which was taking a great deal of the reference staff's time. This group conducted a study to evaluate different methods of instruction. The instructional methods included no instruction, handouts only, lecture, and lecture with a demonstration using an LCD. The group receiving the lecture, utilizing an LCD, was the only one of the four to show any significant difference. The researchers concluded that lectures or handouts without a demonstration are no more effective than no instruction at all.

Rebecca Bostian and Anne Robbins, librarians at the Lamson Library of Plymouth, conducted a study of the relationship between search success of CD-ROM databases and various types of instruction. Freshmen and transfer students were given a questionnaire to evaluate computer experience, computer literacy, and database searching.
The subjects were divided into four groups using the results from the questionnaire to control the composition of the groups. The subjects were all given the same assignment question and were instructed to use the PsycLIT database. Each group was given a different type of instruction.

Group A received no special instructions but was allowed to use any of the publisher-produced items such as the PsycLIT, Quick Reference Guide, Guide to Function Keys, and others. Group B received an in-house designed handout. Group C received a lecture covering the function keys and search strategies using Boolean operators. Group D received a lecture with the same content as Group C and also a live demonstration.

The subjects of each group downloaded their searches on a floppy disk that was examined by the researcher. They were examined for: (1) ratio by search strategy, (2) use of aids, and (3) reaction to search. The performance of Group D, the lecture and live demonstration, was significantly superior to all the other methods of instruction. There was no significant difference found between the other groups.

The researchers concluded, "A picture is worth a thousand words, and a little knowledge is a dangerous thing" (Bostian and Robbins 1990). The reason for this conclusion was that the live demonstration was the only level of instruction that resulted in a significant difference.
The researchers recommend that a live demonstration be incorporated into all instruction of CD-ROM systems. They also recommend that student assistants be trained to assist users of CD-ROM systems.

Steward and Olsen, of Cornell University, conducted a study in 1988 examining the research performance of education students with and without formal instruction on ERIC, the CD-ROM version, versus the print version. The results of this study indicate that students using the CD-ROM version of ERIC outperformed the paper version. The students with formal instruction on the CD-ROM version of ERIC, outperformed the groups of students with no instruction. When given a preference of CD-ROM or the paper version of ERIC, 92.1 percent of the students preferred the CD-ROM. The study also examined students with prior experience. The group with prior experience performed well without instruction.

Summary

This literature review revealed an awareness of the growing need for more effective library instruction programs by librarians. A general bibliographic instruction survey showed an increase in the number of instructional programs being offered over the past ten years with a variety of methods being used. The traditional lecture is still the most popular bibliographic instruction method. A number of studies indicate that students prefer, and are more
motivated by, other methods such as audiotapes, videotapes, and computer-assisted instruction.

Several studies indicated that CD-ROMs have created more demand in libraries for reference assistance and bibliographic instruction. CD-ROM systems are overwhelmingly preferred over paper indexes by users but also most require some type of instruction. The majority of the studies reviewed indicated that users prefer self-paced individualized methods of instruction. When computer-assisted instruction and audio instruction were compared to lecture for effectiveness in teaching students to use library resources, there was no significant difference found.

Video instruction was found in one study to be just as effective as a live presentation when evaluated for student quality of work, motivation, and acceptance. The interactive video method of instruction has not been investigated yet in the library setting, but it is beginning to receive more attention in the literature. Two studies were located, but neither study was successful in finding any significant difference in student achievement. All studies reviewed indicate a need for evaluation of bibliographic instruction programs and additional studies comparing different methods for effectiveness and student preference.
CHAPTER BIBLIOGRAPHY


Sickler, Nancy Gibbs. 1987. The Effects of Different Modes of Instruction and Feedback on the Achievement of Students with Different Levels of Locus-of-Control.


CHAPTER III

METHODOLOGY

Introduction

During the 1991 Fall semester, an experimental study was conducted at Southeastern Oklahoma State University. Four methods of bibliographic instruction were utilized to teach undergraduates to search the PsycLIT CD-ROM system. Approximately 150 participants were given instruction on the use of the system, and a total of 120 participants completed the assignment. The assignment was evaluated on a scale of zero to eighteen. A one-way analysis of variance was used to analyze differences of the mean scores among the groups. A t test was used to analyze the differences in the scores between the groups. The study was conducted to determine which, if any, method of instruction used in the study was the most effective.

All handouts, the assignment, and the evaluation used in this study were designed by the researcher and all were pretested with bibliographic instruction groups in the Summer semester of 1991. The instructional video and the computer-assisted tutorial used in this study were both produced by PsycINFO. The SilverPlatter, PsycInfo division, was very helpful to the researcher by loaning two sets of the PsycLIT CD-ROM disk for use in conducting this study.
This chapter is devoted to the procedures used in conducting the study. Included are the pretest of instruments, the design of the study, the hypotheses, the selection of subjects, and the collection of data procedures. Several tables are included to add clarity and organization to the procedures.

Pretest of Instruments

A pretest of all materials used in this study was conducted with PsycLIT bibliographic instruction classes during the Summer of 1991 at Southeastern Oklahoma State University. One Freshman Orientation class, three undergraduate psychology classes, and two graduate psychology classes were used.

The instruction was given using only the lecture utilizing an LCD and computer-assisted instruction methods. There was a normal distribution of scores of the total test group with a mean score of "eight" on the assignment. No time limit was given to the test group, but most participants were ready to stop and ask questions or just give up after about twenty to twenty-five minutes. The library student assistants were also used to complete the computer-assisted instruction. They also completed the assignment, evaluated the assignment questions, and evaluated the other handouts. There were a few changes made in all the handouts.
and the assignment in order to enhance the clarity. One change included the underlining of the concepts in the assignment questions. The evaluation instrument was also changed to reflect any changes made in the assignment.

The assignment was designed to allow the participant to select one of four different topics, enter search terms, browse the retrieved records, and print only selected records. The assignment gave exercises to the participant in the use of the various function keys, use of Boolean operators to broaden or narrow the search, and search limit functions. A printout with the search strategy and marked records allowed the researcher to evaluate the assignment with the instrument in Appendix C. There is also an example of a completed assignment in Appendix H.

Design of the Study

The design of this experimental study was the static-group comparison. As described by L.R. Gay:

The static-group comparison involves at least two groups: one group received a new, or unusual, treatment, the other received a traditional or usual, treatment, and both groups are post-tested. (Gay 1987, 283)

This study used four groups and post-tested for only one factor--students learning to search the PsycLIT CD-ROM system. Table 1 shows the experimental design of this study.
Table 1.—Experimental Design For Study

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement of learning to search PsycLIT</td>
<td>Lecture</td>
</tr>
</tbody>
</table>

Hypotheses

This experimental study consisted of seven hypotheses. The dependent variable for this study was the achievement of learning to search the PsycLIT CD-ROM system. The independent variables consisted of methods of instruction, lecture, lecture utilizing an LCD, computer-assisted instruction and video. The null hypotheses were as follows:

Hypothesis 1

There is no significant difference in the scores of students in four groups treated by different methods of bibliographic instruction.

Hypothesis 2

There is no significant difference in the scores of students in a group receiving a lecture/demonstration and the scores of a group receiving a lecture/demonstration utilizing an LCD.
Hypothesis 3
There is no significant difference in the scores of students in a group receiving a lecture/demonstration and the scores of a group receiving computer-assisted tutorial instruction.

Hypothesis 4
There is no significant difference in the scores of students of a group receiving a lecture/demonstration utilizing an LCD and the scores of a group receiving computer-assisted tutorial instruction.

Hypothesis 5
There is no significant difference in the scores of students in a group receiving lecture/demonstration and the scores of a group receiving video instruction.

Hypothesis 6
There is no significant difference in the scores of students in a group receiving lecture/demonstration utilizing an LCD and the scores of a group receiving video instruction.

Hypothesis 7
There is no significant difference in the scores of the students in a group receiving computer-assisted tutorial instruction and the scores of a group receiving the video instruction.
Sample Selection

The subjects for this study were freshmen and sophomore students enrolled at Southeastern Oklahoma State University. There were approximately 220 students involved in the study taken from Freshman Orientation, English Composition, and Foundation to Education classes. Table 2 displays the breakdown of participants in the study by classes. To avoid the threat of bias in the study, students who had experience using the PsycLIT or ERIC CD-ROM systems, or had a high level of expertise in the use of computers, were eliminated from the study. One study has been conducted that indicates, "library patrons with some microcomputer experience, not necessarily in searching, can use CD-ROM databases to their advantage if the search software is comparable in user-friendliness to SilverPlatter" (Stewart and Olsen 1988, 52).

Table 2.--Sample Selection

<table>
<thead>
<tr>
<th></th>
<th>FRESHMEN</th>
<th></th>
<th>SOPHOMORE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freshmen</td>
<td>English</td>
<td>Foundation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>Composition</td>
<td>to Education</td>
<td></td>
</tr>
<tr>
<td>Volunteers</td>
<td>110</td>
<td>56</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Eliminated</td>
<td>23</td>
<td>13</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>From Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS:</td>
<td>87</td>
<td>43</td>
<td>49</td>
<td></td>
</tr>
</tbody>
</table>
A questionnaire was used to eliminate high levels of library and computer experience and to provide groups which were homogeneous. There was also an equal number of participants from each academic level.

All students participating in the study were given the questionnaire--included in Appendix A. Any student, who answered "yes" to questions 1, 3, 8, or 9 were eliminated from the study. The remaining students were randomly assigned to groups. Table 3 shows the time schedule for the instructional sessions. The students did not know which method of instruction would be given at the time it was assigned. As was expected by the researcher, there were some students who did not show up for the scheduled instruction.

Table 3.--Schedule of Instructional Sessions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>11:30 A.M.</td>
<td>12:30 P.M.</td>
<td>11:30 A.M.</td>
<td>12:30 P.M.</td>
<td>11:30 A.M.</td>
<td>12:30 P.M.</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>CAI</td>
<td>Video</td>
<td>LCD</td>
<td>CAI</td>
<td>CAI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1:30 P.M. Video</td>
<td>2:30 P.M. Lecture</td>
<td>1:30 P.M. LCD</td>
<td>2:30 P.M. CAI</td>
<td>2:30 P.M. CAI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3:30 P.M. LCD</td>
<td>3:30 P.M. Video</td>
<td>3:30 P.M. Lecture</td>
<td>3:30 P.M. CAI</td>
<td>3:30 P.M. CAI</td>
<td>3:30 P.M. CAI</td>
</tr>
</tbody>
</table>
Only thirty students were desired for each test group, but it was necessary to schedule more for each group to protect the researcher from no-shows. For the lecture, lecture/LCD, and video methods, there were fifteen students scheduled for each session. For the computer-assisted instruction method, there were only five students scheduled for each session.

The time periods were rotated for the different methods of instruction. This would allow for an equal number of students being given instruction for each time period in each group. This would eliminate any question about the time period having any influence on the outcome of the study. There was a total of 120 participants who completed the assignment.

Procedures for Collection of Data

There were approximately forty students assigned to each method of instruction. Each method of instruction was designated as a group. Each group received a different method of instruction. The methods included: lecture/demonstration, lecture/demonstration utilizing an LCD, computer-assisted tutorial instruction, and video instruction. Immediately following the instruction, each student was given the assignment—included in Appendix B. Each student was limited to twenty minutes on the PsycLIT CD-ROM system to complete the assignment. A sample of a completed assignment is included in Appendix H.
Each participant was instructed only to ask questions of the researcher. The researcher monitored all participants as they completed the assignment. No other students were allowed in the area while the study was being conducted. Participants waiting to complete the assignment were isolated from the CD-ROM area. Five CD-ROM computer systems were available for the experiment in order to accommodate all of the students in the group on a rotating basis within a two-hour time period. The researcher instructed all participants to work independently and to refer to the handout in Appendix E as needed. A copy of the Thesaurus of Psychological Index Terms was available for students to use at each PsycLIT CD-ROM system. There was a printer attached to each system, and the assignment gave instructions for printing at various stages of completion. When the twenty-minute time limit was reached, the researcher would assist the participant, if needed, in obtaining a printout.

Group A was given a lecture and a demonstration of the PsycLIT CD-ROM system. The sessions were approximately twenty minutes in length and were conducted on-site in the reference area of the Southeastern Oklahoma State University Library. Using the lecture outline, included in Appendix G, the lecture consisted of background information on the PsycLIT CD-ROM system, detailed explanation of the PsycLIT CD-ROM system function keys, discussion of the Thesaurus of
Psychological Index Terms, and suggestions for search strategies used to retrieve information on a topic. The demonstration consisted of a typical search on the PsycLIT system utilizing the function keys and a variety of search strategies including Boolean operators and limit fields such as language and publication year. Each student was given the handout, included in Appendix E, detailing all areas covered in the lecture along with a sample search found in Appendix F. This group was given an opportunity to ask questions. The group was instructed to follow the sample search steps to complete a search before starting the assignment. They were given the assignment to complete immediately following the lecture.

Group B was given a lecture/demonstration with the same content and handout as Group A. The difference in the instruction was the utilization of a computer liquid crystal display panel, LCD, used to project the screen of the computer so that it could be viewed by all students as the search was being performed during the demonstration. This group was also divided into sessions of no more than fifteen students each session. The group was allowed to ask questions at the end of the session. The same procedure was followed for this group that was used for Group A.

Group C was assigned to an instructional video, "How to Use PsycLIT on CD-ROM," produced by PsycINFO, a cooperative effort of the American Psychological Association and
SilverPlatter, Inc. The video covers demonstrations and techniques of searching the PsycLIT CD-ROM System. Searching techniques include searching by subject using Boolean operators and keyword, author, and through the on-disc thesaurus. The video was viewed by the group in three sessions with no more than fifteen in each group. Immediately following the video, the group was allowed to ask question and was given the same instructions as Groups A and B.

Group D was assigned to a computer-assisted tutorial instruction of the PsycLIT system produced by PsycINFO and set up on an IBM-PC. A handout, included in Appendix D, detailing instruction on the use of this tutorial was given to each student. This group had nine sessions with no more than five participants to a session. Depending on the reading speed of the student, the tutorial was approximately twenty minutes in length. Upon completion of the tutorial, each student was given the assignment--included in Appendix B--and was limited to twenty minutes for completion of the assignment.

Students in each group were given the same assignment, included in Appendix B, to evaluate the knowledge and the understanding gained from the bibliographic instruction. The assignment was given to the students in each group immediately upon completion of the instruction. The assignment was evaluated on a scale of zero to eighteen--using the
performance scale in Appendix C. Each student was expected to demonstrate the performance skills to the level of: A--acceptable, B--unacceptable, and C--needed assistance with each skill being valued at one point for each acceptable rating.

Summary
This study was completed in twelve days. The evaluation of the assignments was completed as the groups were given the instruction. The difficulty encountered in conducting this study was in getting students to complete the assignment. Also there were some students who did not show up for the scheduled instruction. The researcher had anticipated these problems and had scheduled more students than needed in order to have a completion rate of at least thirty students for each group. The researcher did assist some students with the assignment, but this was noted on the evaluation instrument. An attitude survey was not conducted with this study, but the researcher observed a general enthusiasm and interest in the CD-ROM system.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to determine if one method of instruction was more effective than another method in teaching students to search the PsycLIT CD-ROM system. Four methods of instruction were evaluated by giving instruction, having participants complete an assignment, and evaluating the assignment. This chapter will be devoted to the analysis of the data collected in the process of evaluating the assignments using the evaluation instrument included in Appendix C.

The statistical technique used to perform the data analysis for this study was the one-way analysis of variance to test the significance levels among the groups. The t test was used to compare differences between the different groups. A basic computer statistical package compiled by Dr. Pat Powers, Professor of Psychology at Southeastern Oklahoma State University, was used to perform the statistical operations. All hypotheses were tested at the 0.05 level of significance.

The instrument used to evaluate student achievement in the different methods of instruction, included in Appendix C, was developed by the researcher. A trial group was used to test the instructions, assignment, and
evaluation instrument during the 1991 Summer semester at Southeastern Oklahoma State University. Some minor changes were made to enhance clarity in the instructions and questions used in the assignment. Changes were then made to the evaluation instrument to reflect those made to the assignment.

The one-way analysis of variance was used to analyze the data among the groups with the statistical significance determined at the 0.05 level of probability. The one-way analysis of variance is a parametric test. According to L. R. Gay, certain assumptions must be met in order to insure the validity of a parametric test. These are as follows:

1. Variable measured is normally distributed in the population.

2. The data represents an interval or ratio scale of measurement.

3. Subjects are selected independently for the study; if randomization is involved in the subject selection, the assumption of independence is met.

4. The variances of the population comparison groups are equal (Gay 1987).

These requirements were met in this study in the following manner: An interval scale of measure was used in this study to evaluate the performance of participants on the assignment which would be normally distributed in the population. The selection of subjects employed the use of a
random sample, and the variances of the population of the groups were equal for ACT scores, academic levels, and computer and library experience.

Table 4.—Raw Scores

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>Group D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>Freq</td>
<td>Score</td>
<td>Freq</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>14</td>
<td>2</td>
</tr>
</tbody>
</table>

First Null Hypothesis

The first null hypothesis tested was as follows: There is no significant difference in the scores of students in four groups treated by different methods of bibliographic instruction. The one-way analysis of variance shown in Table 6 accepts the null hypothesis at the 0.05 level;
therefore, it showed no significant difference among the scores. This indicates that there is not a difference in the achievement of students learning to search the PsycLIT CD-ROM system among the lecture, lecture utilizing an LCD, computer-assisted instruction, and video.

Table 5.—Sums of the Scores

<table>
<thead>
<tr>
<th>GROUP A</th>
<th>SUM X = 217</th>
<th>SUM $X^2 = 1707$</th>
<th>N = 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP B</td>
<td>SUM X = 245</td>
<td>SUM $X^2 = 2241$</td>
<td>N = 30</td>
</tr>
<tr>
<td>GROUP C</td>
<td>SUM X = 256</td>
<td>SUM $X^2 = 2366$</td>
<td>N = 30</td>
</tr>
<tr>
<td>GROUP D</td>
<td>SUM X = 229</td>
<td>SUM $X^2 = 1951$</td>
<td>N = 30</td>
</tr>
<tr>
<td>TOTALS</td>
<td>SUM X = 947</td>
<td>SUM $X^2 = 8265$</td>
<td>TOTAL N = 120</td>
</tr>
</tbody>
</table>

Table 6.—Analysis of Variance: One-Way Classification

<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>DEG FRE</th>
<th>VAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN GRPS</td>
<td>29.63</td>
<td>3</td>
<td>9.875</td>
</tr>
<tr>
<td>WITHIN GRPS</td>
<td>761.97</td>
<td>116</td>
<td>6.569</td>
</tr>
<tr>
<td>TOTAL</td>
<td>791.59</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>$F = 1.50$</td>
<td></td>
<td>DF = 3 , 116</td>
<td></td>
</tr>
<tr>
<td>$P = 0.2162$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACCEPT HO AT .05 LEVEL - NO SIGNIFICANT DIFFERENCE IN MEANS
The t test was used to determine whether two means were significantly different at the 0.05 probability level between the groups. A t test may be used for independent samples if the samples are randomly formed, that is, formed without any type of matching. According to Gay:

The strategy of the t test is to compare the actual mean difference observed with the difference expected by chance. The t test involves forming the ratio of these two values. In other words, the numerator for a t test is the difference between the sample means, and the denominator is the chance difference which would be expected if the null hypothesis were true. The standard error is the difference between means. (Gay 1987, 213)

Table 7.—Testing Difference in Means by T-distribution

<table>
<thead>
<tr>
<th>GROUP</th>
<th>MEAN</th>
<th>ST DEV</th>
<th>ST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP A</td>
<td>7.23</td>
<td>2.18</td>
<td>0.40</td>
</tr>
<tr>
<td>GROUP B</td>
<td>8.17</td>
<td>2.88</td>
<td>0.53</td>
</tr>
<tr>
<td>GROUP C</td>
<td>8.53</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>GROUP D</td>
<td>7.63</td>
<td>2.65</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Table 8.—Standard Error Difference

<table>
<thead>
<tr>
<th>GROUPS (A, B)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.66</td>
<td>1.418</td>
<td>0.158</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUPS (A, C)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.61</td>
<td>2.147</td>
<td>0.034</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUPS (A, D)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.63</td>
<td>0.640</td>
<td>0.532</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUPS (B, C)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.70</td>
<td>0.526</td>
<td>0.607</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUPS (B, D)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.71</td>
<td>0.748</td>
<td>0.465</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUPS (C, D)</th>
<th>IN MEANS</th>
<th>T-VALUE</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.66</td>
<td>1.354</td>
<td>0.178</td>
<td></td>
</tr>
</tbody>
</table>
Second Null Hypothesis

The second null hypothesis tested was as follows:
There is no significant difference in the scores of students in a group receiving a lecture/demonstration and the scores of a group receiving a lecture/demonstration utilizing an LCD. The standard error difference, calculated using the t test, was 0.158 between Groups A and B as shown in Table 7. The null hypothesis is accepted; therefore, the researcher concludes that the lecture method was no more effective than the lecture utilizing an LCD method in teaching students to search the PsycLIT CD-ROM system.

Third Null Hypothesis

The third null hypothesis tested was as follows:
There is no significant difference in the scores of students in a group receiving a lecture/demonstration and the scores of a group receiving computer-assisted tutorial instruction. The standard error difference, calculated using the t test, was 0.532 between Groups A and D as shown in Table 7. The null hypothesis is accepted; therefore, the researcher concludes that the lecture method was no more effective than the computer-assisted instruction method in teaching students to search the PsycLIT CD-ROM system.

Fourth Null Hypothesis

The fourth null hypothesis tested was as follows:
There is no significant difference in the scores of students
of a group receiving a lecture/demonstration utilizing an LCD and the scores of a group receiving computer-assisted tutorial instruction. The standard error difference, calculated using the t test, was 0.465 between Groups B and D as shown in Table 7. The null hypothesis is accepted; therefore, the researcher concludes that the lecture utilizing an LCD method was no more effective than the computer-assisted instruction method in teaching students to search the PsycLIT CD-ROM system.

Fifth Null Hypothesis

The fifth null hypothesis tested is as follows:
There is no significant difference in the scores of students in a group receiving lecture/demonstration and the scores of a group receiving video instruction. The standard error difference, calculated using the t test, was 0.034 between Groups A and C as shown in Table 7. The null hypothesis is rejected; therefore, the researcher can conclude that the video instructional method was more effective than was the lecture method of instruction.

Sixth Null Hypothesis

The sixth null hypothesis tested was as follows:
There is no significant difference in the scores of students in a group receiving lecture/demonstration utilizing an LCD and the scores of a group receiving video instruction. The standard error difference, calculated using the t test, was
0.607 between Groups B and C as shown in Table 7. The null hypothesis is accepted; therefore, the researcher concludes that the lecture utilizing an LCD method was no more effective than the video instruction method in teaching students to search the PsycLIT CD-ROM system.

**Seventh Null Hypothesis**

The seventh null hypothesis tested was as follows: There is no significant difference in the scores of the students in a group receiving computer-assisted tutorial instruction and the scores of a group receiving the video instruction. The standard error difference, calculated using the t test, was 0.178 between Groups C and D as shown in Table 7. The null hypothesis is accepted; therefore, the researcher concludes that the video method of instruction was no more effective than the computer-assisted instruction method in teaching students to search the PsycLIT CD-ROM system.

**Summary**

The fifth null hypothesis tested in this study was rejected while the other six hypotheses were accepted. This indicated that the video method of instruction was more effective in teaching students to search the PsycLIT CD-ROM system than the lecture method. The lecture utilizing an LCD and the computer-assisted groups both had a higher average score than the lecture group but the scores were not high enough to be statistically significant.
CHAPTER BIBLIOGRAPHY

CHAPTER V

SUMMARY

CD-ROMs were introduced to libraries only a few years ago, but they have already had a dramatic impact. The reference and bibliographic instruction personnel have been affected by CD-ROMs with more demand for reference assistance and for bibliographic instruction. CD-ROM systems present librarians with a unique challenge. Silver states: "The CD-ROM databases act like magnets. They attract people who would not normally frequent the library" (Silver 1988). Some CD-ROM systems are very expensive—as much as $4,000 to $5,000. With an investment this size, it is imperative that the utmost use be made of the system. Therefore, librarians must promote their use. User instruction is the most effective means of promotion, but it is necessary that this instruction be effective. Dieter Schmidmaier emphasized the need for CD-ROM user education. Schmidmaier, in a report to the International Essen Symposium Universitasbibliothek Essen, stated:

A user education program should have the following goals: familiarize users with CD-ROM systems; help users utilize CD-ROM in an effective and efficient way; help users understand the rationale behind selecting print, online, or CD-ROM versions of information sources for any particular search; assist users in coping with an abundance of information; increase and intensify users’ knowledge of library use; prepare users for the workplace, where they will often find
modern technology, especially in business, the sciences, and other technical disciplines. (Schmidmaier 1991)

A number of articles indicate that library users need some form of instruction to effectively access a CD-ROM system. One-on-one instruction has been found to be the most effective means of instruction (Bostian and Robbins 1990). After installing a CD-ROM system, some libraries have found that one-on-one assistance was overloading the reference staff. There are a number of disadvantages to this type of instruction. It requires too much of the reference staff's time; thereby, taking time away from other services. Also, it is expensive to offer and inconvenient since librarians are not on duty all hours that the library is open.

Observations

As this study was being conducted, the researcher noted several observations that deserve mentioning. Some of the participants in the computer-assisted instruction group were not well-suited to that type of instruction. They moved either very slowly through the tutorial or so fast that it was obvious that they had become bored and had not completed the tutorial. These were the participants who scored very low on the assignment.

Some of the participants completed the tutorial in about thirty minutes and had a high score on the assignment. The researcher believes that if libraries would provide
tutorials for all CD-ROM systems at least a few students would take advantage of them.

The next observation concerns the video instruction group. Many of these participants asked if the video was available for checkout. Since the study has been completed, the video is being circulated on a regular basis. If libraries would provide more videos for instruction, students would be more independent in learning to use library resources.

The final observation concerns the demonstration. In both the video and the lecture, utilizing an LCD method, the participants could observe the demonstration. The average scores of these groups were higher than the lecture group which could not observe a demonstration. The researcher believes that a demonstration is vitally important for effective instruction on this type of library resource.

Conclusion

The purpose of this study was to determine which method of instruction was the most effective in teaching students to search CD-ROM systems. It is the conclusion of this researcher that most methods of instruction would produce learning on the part of the student. The results of this study indicate that the video instruction was more effective in teaching students to search the PsycLIT CD-ROM system than was the lecture method. The video instruction
was not more effective than the lecture utilizing an LCD or the computer-assisted instruction.

The researcher believes that the reason for this result is that with CD-ROM systems it is important for the subjects to, not only gain knowledge concerning the source, but also to see a demonstration, and it does not necessarily need to be a live demonstration. With the groups used in this study, the assignment immediately followed the viewing of the video. If there had been a time lapse, there probably would not have been any difference in the test results.

Libraries could benefit in a number of ways by providing videos and computer-assisted instruction products to their patrons. Products or methods that provide individual instruction are preferred by users. The quality and consistency is insured. Librarians save valuable time on preparation and presentation of instruction, and videos may be used inside or outside of the library.

Librarians need to utilize a variety of methods allowing students to choose the one that is best-suited for their varying needs. The library can save time, energy, and money by using professionally-prepared materials. There is no need for every library to reinvent the wheel. If a producer has a product already developed, such as the video or the CAI used in this study, they should be used.
Librarians are just beginning to see the potential use of videos for library instruction. According to Sweeney and Reigeluth, "The lecture is the most widely used form of instruction in existence" (1988). The results of this study should encourage the use of more videos for library instruction. There are several implications gained from this study. First, there is at least one method of instruction that is superior to lecture, and that is the video method. Second, the video method used in this study was more economical in terms of time and energy requirement on the librarian. Third, the video method can be utilized in the library or at another location. Fourth, the video method can be used by groups or by individuals. Fifth, videos can also be effective in teaching the use of other CD-ROM systems. Sixth, videos could also be effective in teaching the use of other library resources.

The researcher also believes that instruction on CD-ROM systems is more effective if the user is required to complete an assignment following the instruction. There is no question that experience is the best teacher. Schmidmaier reports the following concerning user education:

Frequent use of CD-ROM systems leads to better use, and some training is better than no training; CD-ROM allows for demonstrations of electronic databases without online cost, permits a comparison of different software for searching, and enables demonstration searching in classrooms lacking phone lines and telecommunications capabilities; CD-ROM user education encompasses different kinds of user education programs, but must also take into account the experiences of users with other information sources, information
technology, and libraries in general; users prefer personal, on-demand instruction for CD-ROM systems to written instructions or group lectures; the most common training method is the group lecture with demonstration searching, followed by hands-on experience; self-instruction programs such as computer-assisted instruction, users guides, and manuals supplement group lectures and on-demand instruction. (1988)

Recommendations

The researcher recommends that further study be conducted using the video method of instruction. The potential benefits of this media are so great it is amazing that so little research has been conducted to this point. Interactive video also has the potential of being even more effective as a library instructional method. The researcher believes that the reason videos are not widely used in libraries is because they are so expensive to produce.

Recommendations for future studies are as follows:

1. This experiment could be extended to include the attitude factor in order to determine which method of instruction is preferred by users.

2. This study could be replicated at another academic library.

3. Another study could be conducted to analyze the ability of graduates compared to undergraduates to determine which method would be best suited for the groups.

4. Another study could be conducted to analyze students who have computer experience to see if there is a need to provide any instruction on CD-ROM systems.

5. Another study could be conducted to analyze student achievement on other library sources using the video method.

6. Another study could be conducted using a local area network where a group could access the same CD-ROM database while receiving instructions.
CHAPTER BIBLIOGRAPHY


APPENDIX A

COMPUTER EXPERIENCE QUESTIONNAIRE
QUESTIONNAIRE

Library and Computer Experience

Name__________________________  Class__________________________

Date__________________________  Time__________________________

Please circle the answer that best describes your experience.

1. Have you ever owned a personal computer?  Yes or No

2. Have you had at least one high school or college computer class?  Yes or No

3. Have you had two or more high school or college computer classes?  Yes or No

4. Have you ever used a personal computer before?  Yes or No

5. Have you ever used a personal computer where you work?  Yes or No

6. Have you ever used the computer system to search for books in the SOSU library?  Yes or No

7. Have you ever used the Infotrac Computer System to search for information?  Yes or No

8. Have you ever used the ERIC Computer System to search for information?  Yes or No

9. Have you ever used the PsycLIT System?  Yes or No
APPENDIX B

PSYCLIT CD-ROM SEARCH ASSIGNMENT
PsycLIT CD-ROM Search Assignment

Name_________________________________ Class____________________
Date_________________________________ Time______________________

Select one of the search assignments in Part I and answer the questions below in Part II.

Part I
A. You are assigned to locate information on tests or scales used to predict academic success of first-grade students.

B. You are assigned to write a research paper on prenatal stress and its effect on child development.

C. You are assigned to locate information on counseling services available for family members of Alzheimer's disease patients.

D. You are assigned to research the effects of the number of siblings on educational achievement or academic success.

Part II
1. Identify the major concepts for the selected assignment.

____________________________________________________________________

____________________________________________________________________

2. Use the thesaurus to look up the descriptors and the related terms for the major concepts listed in #1.

____________________________________________________________________

____________________________________________________________________

3. Search the PsycLIT system for documents on one of the concepts or descriptors for the selected assignment.
4. Using the SHOW function key, browse the set located and MARK the third and seventh records to be printed.

5. Obtain a printout of your search strategy, the document citation, and the abstract for the MARKED records.

6. Enter other concepts to expand your search.

7. Narrow your search to retrieve 30 documents or less by combining terms. Obtain a printout of your search strategy, the document citation, and the abstract for the first record.

8. Limit your search to the year 1989 or 1979. Print the document citation, abstract, and search strategy for the first record.

9. Search the PsycLIT System for an article by the author, Brian Powell. Print the citation, abstract, and search strategy for the first record.

10. Search the PsycLIT System for one of these articles by the title, "A Service to Ourselves or Our Clients," or "Spelling Dyslexia." Print the citation, abstract, and search strategy for the first record.


12. Locate a document with the accession number 78-08324 or 68-13704. Print the citation and search strategy for the first record.

13. Locate at least one journal article about mental illness in the German or French language. Print the citation, abstract, and search strategy for the first record.

14. Review the second search set. Print the document citation, abstract, and search strategy for the first record.
APPENDIX C

PSYCLIT CD-ROM PERFORMANCE EVALUATION
PsycLIT CD-ROM Performance Evaluation

Name_________________________________________ Score________________

Each student will demonstrate the performance skills to the level of A acceptable, B unacceptable and C needed assistance with each skill being valued at one point for each acceptable rating.

1. Use of PsycLIT thesaurus to locate one descriptor  A____B____C____
2. Use of Index F5 to locate keyword  A____B____C____
3. Use of one Boolean operator  A____B____C____
4. Use of two or more Boolean operators  A____B____C____
5. Narrowed topic by using related terms  A____B____C____
6. Narrowed topic by year  A____B____C____
7. Narrowed topic by a given journal title  A____B____C____
8. Obtained printout with citations  A____B____C____
9. Obtained printout with abstracts  A____B____C____
10. Located and printed the citation for a document for a given language  A____B____C____
11. Obtained printout with search strategy  A____B____C____
12. Obtained printout of only desired citation  A____B____C____
13. Located and printed citation of a document by a given title  A____B____C____
14. Located and printed citation of a document by a given author  A____B____C____
15. Located and printed citation of a document by an accession number  A____B____C____
16. Use of the # to search  A____B____C____
17. Use of the * to search a word root  A____B____C____
18. Use of hyphen to search a phrase  A____B____C____
APPENDIX D

PSYCLIT TUTORIAL INSTRUCTION
PsycLIT Tutorial

Instructions

Please follow the instructions listed below. If you have any questions, see Mrs. Davis.

1. Press [Ctrl] [Alt] [Del] all at the same time.

2. At the C:\> type cd\Psyc

3. At the C:\ psyc> type psyc
   Note: You may need to use page down and page up keys instead of [pgup] and [pgdn] on some keyboards.

4. Press [tab] key to highlight selection and then
   Press [enter].

5. Please read and follow the instructions in all four areas of the tutorial.

6. When you have finished, highlight Quit and press [enter] This will take you out of the tutorial.

7. At C:\Psyc> type Spirs

8. Select PsycLIT database. Use the sample search and follow each step to complete a PsycLIT Search.

9. You are ready to complete the search assignment now.

   Available at the Information Desk
APPENDIX E

HOW TO SEARCH PSYCLIT
HOW TO SEARCH PSYCLIT

PsycLIT is the CD-ROM version of Psychological Abstracts. The PsycLIT database contains citations and abstracts of articles from over 1300 journals on or related to the subject of psychology in 27 different languages from approximately 50 countries. Coverage is from the year 1974 to the present. You can search on PsycLIT by author, title, subject, concept, or phrase.

FUNCTION KEYS

F1 F2 F3 F4 F5 F6 F7 F8 F9
HELP FIND GUIDE SHOW INDEX PRINT RESTART XCHAN THESA

F10 COMHDS

TO BEGIN A SEARCH PRESS F2 TYPE IN A WORD OR PHRASE
THEN PRESS ENTER

FINDING SUBJECTS:
Look in the paper Thesaurus or the online Thesaurus by pressing the F9 terms listed here are called descriptors.

Enter descriptors like this:

single word: anxiety in de (To search as a descriptor or subject)

multiple word terms: college-students. (connect words by hyphens)

If appropriate terms are not in the Thesaurus, enter the words or phrases by themselves omitting the de or hyphens.
FINDING AUTHORS

PRESS [F5] for the INDEX then type author's name like this:

Adams-Robert

Look at the list of names to find all possible entries or select the names you wish to search by pressing

[ENTER]

THEN PRESS [F2] and search all selected name entries

COMBINING SEARCH TERMS

By using the Boolean operators AND, OR, and NOT.

1. If your subject was the effect of the use of drugs on teenagers.

USING OR

Combining Search terms by using OR to retrieve records that contain either or both terms.

FIND: drug-abuse or alcohol press [enter]

<table>
<thead>
<tr>
<th>Results</th>
<th>No. Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>2660</td>
<td>drug-abuse</td>
</tr>
<tr>
<td>#2:</td>
<td>9463</td>
<td>alcohol</td>
</tr>
<tr>
<td>#3:</td>
<td>11305</td>
<td>drug-abuse or alcohol</td>
</tr>
</tbody>
</table>
Another way to combine terms would be

FIND: #1 or #3 press [enter]

Results No. Records Request
#4: 11305 #1 or #3

USING AND

Narrow your search by using AND.
This will reduce the number of retrieved records and will make the search more specific. Also, using the * asterisk to indicate a root will retrieve all records using this root.

FIND: #4 and teen* press [enter]

Results No. Records Request
#5: 1111 teen*
#6: 127 #4 and teen*

USING NOT

Using the operator NOT will exclude a closely-related subject from your search result.

FIND: drug-abuse NOT cocaine

Results No. Records Request
#1: 2660 drug-abuse
#2: 953 cocaine
#3: 2335 drug-abuse not cocaine
LIMITING SEARCHES

You can also limit your search by year of publication, language, or of just certain fields.

By year of publication:
Find: drug-abuse and py=1990

<table>
<thead>
<tr>
<th>Results No.</th>
<th>Record</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>534</td>
<td>drug-abuse</td>
</tr>
<tr>
<td>#2:</td>
<td>12343</td>
<td>py=1990</td>
</tr>
<tr>
<td>#3:</td>
<td>211</td>
<td>drug-abuse and py=1990</td>
</tr>
</tbody>
</table>

By language:
Find: drug abuse and la=english

<table>
<thead>
<tr>
<th>Results No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>534</td>
<td>drug-abuse</td>
</tr>
<tr>
<td>#2:</td>
<td>25698</td>
<td>la=english</td>
</tr>
<tr>
<td>#3:</td>
<td>420</td>
<td>drug-abuse and la=english</td>
</tr>
</tbody>
</table>

By title:
Find: drug abuse in ti

<table>
<thead>
<tr>
<th>Results No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>534</td>
<td>drug-abuse</td>
</tr>
<tr>
<td>#2:</td>
<td>455</td>
<td>drug-abuse in ti</td>
</tr>
</tbody>
</table>

By author:
Find: Adams-r in au

<table>
<thead>
<tr>
<th>Results No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>2</td>
<td>Adams-r in au</td>
</tr>
</tbody>
</table>

By accession number:
Find : 78-16891 in an

<table>
<thead>
<tr>
<th>Results No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1:</td>
<td>1</td>
<td>AN=78-16891</td>
</tr>
</tbody>
</table>
TO SHOW RESULTS

PRESS F4 TO DISPLAY ITEMS FROM THE LAST SET.

Press pgdn or pgup to view next or previous

F4 Menu: Mark record select search term option.

As you browse through records, you may MARK RECORD for later printing. Press tab key to Highlight mark record and press Enter or M. ASTERISKS will appear on the left margin of the record.

TO PRINT RESULTS

Press F6 PRINT to print records.

PRINT OPTIONS

Fields to print: Citn, Ab, De
Records to print: All, marked or 1-10
Field Labels: (Short) Long None
Print Searches: (Yes) no
Clear Mark Set: Yes (no)

MENU: Start Print Change Options

(use tab key to highlight selection)

Press return when ready to print.

To discontinue press ctrl Break

Press F2 to continue Search or Review.

Press F7 to restart.
SAMPLE DOCUMENT

TI: Modeling transitions in latent stage-sequential processes; a substance use prevention example.

AU: Graham,-John-W.; Collins,-Linda-M.


CO: CODEN JCLPBC

IS: 0022006X

LA: English

PY: 1991

AB: This article illustrates the use of latent transition analysis LTA, a methodology for testing stage-sequential models of individual growth. LTA is an outgrowth of latent class theory and is a particular type of latent Markov model emphasizing the use of multiple manifest indicators. LTA is used to compare the fit of 2 models of early adolescents substance use onset and to assess the effects of a school-based substance use or prevention program on Ss measured in 7th and again in 8th grade.

KP: Latent transition analysis; comparison of fit of models of substance use onset and assessment of effectiveness of school-based prevention program; 7th graders; 1-yr. follow-up

DE: Developmental-Stages; Statistical-Analysis; Goodness-Of-Fit; Treatment-Effectiveness-Evaluation; Mathematical-Modeling; Junior-High-School-Students; Follow-up-Studies; Adolescence-;

AG: Adolescent AN: 78-16940 AG: Adolescent

FIELD ABBREVIATIONS

AB: Abstract AG: AGE Group

AN: Accession number IS: Intna Standard Serial number

AU: Author LA: Language

DE: Descriptor JN: Journal citation

TI: Title document PY: Publication Year
APPENDIX F

PSYCLIT DATABASE
PsycLIT Database

Sample Search

Silver Platter Information Work Station

Use to backspace. Type in all letters underlined.

FUNCTION KEYS

To Start Search press 

At the Prompt FIND: Type subject

FIND: drug-abuse press enter

Results No. Records Request
#1: 2660 Drug-abuse

Step 2 Type in another Search term
FIND: alcohol press

Results No. Record Request
#1: 2660 drug-abuse
#2: 9463 alcohol

Step 3 Combining Search terms by using OR to retrieve records that contain either or both terms.

FIND: drug-abuse or alcohol press

Results No. Record Request
#3: 2660 drug-abuse
#4: 9463 alcohol
#5: 11305 drug-abuse or alcohol
Step 4
Another way to combine terms would be
FIND: #1 or #2 press \[enter\]

<table>
<thead>
<tr>
<th>Results</th>
<th>No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#6:</td>
<td>11305</td>
<td>#1 or #2</td>
<td></td>
</tr>
</tbody>
</table>

Step 5
Narrow your search by using AND
This will reduce the number of retrieved records and will make the search more specific. Also, using the * Asterisk to indicate a root will retrieve all records using this root.

FIND: #6 and teen* press \[enter\]

<table>
<thead>
<tr>
<th>Results</th>
<th>No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#7:</td>
<td>1111</td>
<td>teen</td>
<td></td>
</tr>
<tr>
<td>#8:</td>
<td>127</td>
<td>#6 and teen*</td>
<td></td>
</tr>
</tbody>
</table>

Step 6
To further narrow your search, you may use LIMIT
FIELD F1 for GUIDE to review information on
LIMIT FIELDS to view more pages press pgdn R to resume your work.

Step 7
FIND: #8 and py = 1990 press \[enter\]

<table>
<thead>
<tr>
<th>Results</th>
<th>No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#9:</td>
<td>29419</td>
<td>py = 1990</td>
<td></td>
</tr>
<tr>
<td>#10:</td>
<td>11</td>
<td>#8 and Py = 1990</td>
<td></td>
</tr>
</tbody>
</table>

Step 8
FIND: #8 and la = english press \[enter\]

<table>
<thead>
<tr>
<th>Results</th>
<th>No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#11:</td>
<td>120</td>
<td>La = English</td>
<td></td>
</tr>
<tr>
<td>#12:</td>
<td>268487</td>
<td>#8 and la = english</td>
<td></td>
</tr>
</tbody>
</table>

Step 9
FIND: drug-abuse in ti

<table>
<thead>
<tr>
<th>Results</th>
<th>No.</th>
<th>Records</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>#13:</td>
<td>55</td>
<td>Drug-abuse in ti</td>
<td></td>
</tr>
</tbody>
</table>
Step 10  Press F4  SHOW to view records

Step 11  Press pgdn  pgup to view next or previous record

Step 12  F4 Menu: Mark record select search term option.  
As you browse through records, you may mark 
record for later printing. Press tab key to 
Highlight mark record and press enter  or M.  
Asterisks will appear on the left margin of the 
record.

Step 13  Press F6  to print records

---

**PRINT OPTIONS**

Fields to print: Citn, Ab, De  
Records to print: All, marked or 1-10  
(limited to 20 records)  
Field Labels: (Short) Long None  
Print Searches: (Yes) no  
Clear Mark Set: Yes (no)

**MENU:**
  Start Print  Change Options  
  (use tab key to highlight selection)

Step 14  Press return  when ready to print.

Step 15  To discontinue press ctrl  Break

Step 16  Press F2  to continue Search or Review.

Step 17  Press F7  to restart.
APPENDIX G

PSYCLIT LECTURE OUTLINE
PSYCLIT LECTURE OUTLINE

Psychological Abstracts

Coverage

The comprehensive monthly compilation of nonevaluative summaries of the serial literature in psychology and related disciplines.

Indexing

The monthly issues contain abstracts listed under 17 major categories. The abstracts are arranged alphabetically by first author. Abstracts are numbered consecutively each year. The monthly issues contain author and brief subject index. Annually an expanded and integrated index is published.

Searching

You will have to go to the abstract section, find the abstract number, and there you will locate the information that you will need to find the journal article.

Disadvantage

Very slow, time consuming

PsycLIT

Coverage

PSYCHLIT is the CD-ROM version of Psychological Abs. Contains abstracts from articles in approximately 1300 different journals published in almost 30 countries from around the world in 50 different languages. Coverage is from 1974 to the present.

Advantages

Do not have to search through each volume
Fast—can cover much more ground. Can print—do not have to write anything down.

Explanation of Keyboard

Function keys, backspace, tab key, page up and page down, refer to handout
Searching

(Refer to handout "How to search PsycLIT")
PsycLIT can be searched by author, subject, concept, or phrase.

Thesaurus

When you are unsure of the correct subject concept, consult the Thesaurus of Psychological Index Terms. The PsycINFO database is structured by these Psychological Index Terms, called Descriptors.

The Thesaurus of Psychological Index Terms will:
tell you the relationship between closely related subject terms; will tell you the preferred term to use; will guide you to terms that you might have missed.

For example: when you press the F9 key and type in the words use drug abuse the following is displayed.

LIST OF PERMUTED TERMS

DRUGS

Press T for term details as follows:

TERM DETAILS FOR: Drug Addiction

SCOPE NOTE: Year term introduced: 1967. Physical and emotional dependence on a chemical substance. Compare DRUG DEPENDENCY.

BROADER TERM(S): Addiction Behavior Disorders Drug Dependency Side Effects (Drug)
NARROWER TERM(S): Heroin Addiction
RELATED TERM(S): Drug Overdoses; Drug Withdrawal; Methadone Maintenance

Searching by subject
(refer to Sample PsycLIT Search)

1. Begin by pressing the F2 Function key.
   
   If you wanted to search for information about how using drugs affects depression, you would do the following.

2. You would not type, "using drugs affects depression."

3. Divide the search concept into keywords or phrases.

4. Type the phrase, "drug abuse."

5. Results show on the screen in what is known as a search set.

6. Add the keyword, "depression."

7. Type "depression."

8. It shows as two separate search sets. How do you combine?

9. You do that by using the word, "AND." When you use the Boolean Operator "AND", "AND" refines or narrows your search.

10. If you wanted to include other related terms to drug abuse, such as alcohol, then you would use the Boolean operator "OR." OR expands your search.

11. You can also limit searches by:
    year of publication PY = 1990
    language LA = ENGLISH
    title cocaine in ti
    author kosten in au

    See handout for details on limiting a search by author, title, accession number, language, and year.

Index

To search for author, it is best to start by using the Index by pressing the F5 key. Type the author's last name-first name, for example.
The Index will list all forms of the name. Select the names you wish to search by pressing the S key the pressing the F key.

Showing the Results

(see handout)

1. Once you have found the set you want, then you can show them on the screen by using the F4 function key.

2. The PsycLIT database is composed of thousands of records, each describing one journal article.

3. Each record is divided into bits of information called FIELDS. Each FIELD describes some aspect of the record. (see Sample Document)

   AU = Author field.
   TI = Title field
   JN = Journal field
   AB = Abstract Field

4. Advance to the next record by pressing the Page DOWN key—"PGDN".

Print the Results

(see handout)

1. As you browse through the records, you can mark the ones that you want to print. Press the M to mark the record.

2. NOTICE THE MENU AT THE BOTTOM OF THE SCREEN.

3. When ready to print, move highlighted bar over PRINT at the bottom of screen or Press F6 function key.

4. Notice the menu. You can either start printing now or you can change the options.

   PRINT OPTIONS
   Fields to Print: Citn, ab, de
   Records to print: all
   Field Labels: Short Long None
   Print Searches: (Yes) No
   Clear Marked Set: yes No
APPENDIX H

SAMPLE ASSIGNMENT COMPLETED
Marked in Search: #1
AU: Rudnytsky,-Peter-L.
IN: Columbia U, NY, US
JN: Psychoanalytic-Study-of-the-Child; 1988 Vol 43 423-432
CO: PYACAZ
IS: 00797308
LA: English
PY: 1988
AB: Compares the psychoanalytic experience of H. Guntrip (1975), who had over 1,000 sessions with W. R. Fairbairn in the 1950s and over 150 with D. W. Winnicott in the 1960s, with the self-analysis of Freud. Both lost a younger brother, Guntrip at 3.5 yrs. old and Freud when he was less than 2 yrs. old. Whereas, in Freud the death of a brother gives rise to conflict between ambivalent feelings and love, which led to guilt, Guntrip's inability to recall and hence mourn his sibling's death was indicative of arrest at a more primitive stage of emotional development. Guntrip unblocked his amnesia in 1971 after learning of Winnicott's death. (PsycLIT Database Copyright 1991 American Psychological Assn., all rights reserved)
KP: guilt & sibling loss in psychoanalysis of H. Guntrip & self analysis of Freud; conference presentation
DE: GUILT-; SIBLING-RELATIONS; PSYCHOANALYSIS--; FREUD-SIGMUND; DEATH-AND-DYING; PROFESSIONAL-MEETINGS-AND-SYMPOSIA
CC: 3310; 33
PO: Human
UD: 9106
AN: 78-16127
JC: 1624
Marked in Search: #5

**TI:** Clause social y situation dentro de la fratria: Interacción y efectos sobre el desarrollo del individuo.
(Social class and birth order: Interaction and effects on the individual's development.)

**AU:** Elices,-Juan-A.; Gonzalez,-Carmelita; Riveras,-Felipe; del-Angel-Crespo,-Maria

**IN:** School & Vocational Orientation Service, Valladolid, Spain

**JN:** Infancia-y-Aprendizaje; 1989 No 46 37-47

**IS:** 02103702

**LA:** Spanish

**PY:** 1989

**AB:** Studies the effect of social class (rural, urban middle, ghetto), number of siblings, and birth order on measures of vocabulary; relational, differential, and quantitative concepts; visual discrimination of symmetries; reading comprehension; and school achievement; for a sample of 507 5-7 yr. old. As expected, urban middle class pupils out-performed rural children, who were superior to ghetto children, particularly in language. There were no differences by number of siblings. The largest effects related to birth order; older and middle children out-performed younger siblings for the urban and rural children, while middle, followed by younger, children outperformed elder siblings for ghetto children. (English abstract) (PsycLIT Database Copyright 1990 American Psychological Assn., all rights reserved)

**KP:** social class & number of siblings & birth order; vocabulary & relational & differential & quantitative concepts & visual discrimination & reading comprehension & school achievement; 5-7 yr. old

**DE:** SOCIAL-CLASS; FAMILY-SIZE; BIRTH-ORDER; COGNITIVE-DEVELOPMENT; VOCABULARY--; CONCEPT-FORMATION; VISUAL-DISCRIMINATION; READING-COMPREHENSION; ACADEMIC-ACHIEVEMENT; PRESCHOOL-AGE-CHILDREN; SCHOOL-AGE-CHILDREN; CHILDHOOD-

**CC:** 2820

**PO:** Human

**AG:** Child

**UD:** 9012

**AN:** 27-79180

2 of 2

Marked in Search: #5

**TI:** Ability and achievement.

**AU:** Duncan,-Otis-D.

**IN:** U Michigan, Population Studies Ctr., Ann Arbor

**JN:** Social-Biology; 1982 Fal-Win Vol 29(3-4) 208-220
In the present study, data were obtained from a questionnaire supplement to the Current Population Survey of the Bureau of the Census, as tabulated by A. D. Klassen (1966) for the National Opinion Research Center. Father's occupation and education, the number of siblings, and the early intelligence level of the respondent were taken to be "pre-determined" variables, with no assumption made as to causal order, with respect to later achieved status and intelligence measured at maturity. Four successive dependent variables were educational attainment, intelligence at maturity, occupational achievement, and monetary earning. Results indicate that the ideal of equal educational opportunity was realized in the White population studied to the extent that progress through the school system was influenced at least as much by how bright one was as by "who" one was. However, the fact that the latter, indexed by measures of family size and status, did make a substantial difference in educational outcome, apart from its correlation with intelligence, was an indication that the ideal is far from being completely realized. (26 ref) (PsycLIT Database Copyright 1984 American Psychological Assn., all rights reserved)
Marked in Search: #7

TI: Clause social y situación dentro de la fratria: Interacción y efectos sobre el desarrollo del individuo.
(Social class and birth order: Interaction and effects on the individual's development.)

AU: Elices,-Juan-A.; Gonzalez,-Carmelita; Riveras,-Felipe; del-Angel-Crespo,-Maria

IN: School & Vocational Orientation Service, Valladolid, Spain

JN: Infancia-y-Aprendizaje; 1989 No 46 37-47
IS: 02103702
LA: Spanish
PY: 1989

AB: Studies the effect of social class (rural, urban middle, ghetto), number of siblings, and birth order on measures of vocabulary; relational, differential, and quantitative concepts; visual discrimination of symmetries; reading comprehension; and school achievement; for a sample of 507 5-7 yr. old. As expected, urban middle class pupils outperformed rural children, who were superior to ghetto children, particularly in language. There were no differences by number of siblings. The largest effects related to birth order; older and middle children outperformed younger siblings for the urban and rural children, while middle, followed by younger, children outperformed elder siblings for ghetto children. (English abstract)

(KP: social class & number of siblings & birth order; vocabulary & relational & differential & quantitative concepts & visual discrimination & reading comprehension & school achievement; 5-7 yr. old)

DE: SOCIAL-CLASS; FAMILY-SIZE; BIRTH-ORDER; COGNITIVE-DEVELOPMENT; VOCABULARY--; CONCEPT-FORMATION; VISUAL-DISCRIMINATION; READING-COMPREHENSION; ACADEMIC-ACHIEVEMENT; PRESCHOOL-AGE-CHILDREN; SCHOOL-AGE-CHILDREN; CHILDHOOD-

No. Records Request
1: 1469 SIBLINGS
2: 2982 ACADEMIC-ACHIEVEMENT in DE
3: 41 #1 and #2
4: 182 FAMILY-SIZE
5: 8 #3 and #4
6: 35568 PY=1989
Marked in Search: #8
TI: Beyond sibship size: Sibling density, sex composition, and educational outcomes.
AU: Powell, Brian; Steelman, Lala-C.
IN: Indiana U, US
JN: Social Forces; 1990 Sep Vol 69(1) 181-206
CO: SOFOAP
IS: 00377732
IA: English
PY: 1990
AB: Data from 2 national longitudinal studies of high school students were used to examine the effects of sibship density (close vs wide spacing of siblings) and sex composition (numbers of sisters and brothers) on academic outcomes. Close spacing between siblings had a more detrimental effect on grade point average (GPA), test performance, and degree of parental involvement in reading to children than did wide spacing. Sex composition did not affect test performance, but it had a negative effect on GPA. Two possible interpretations of the results are discussed. These are the confluence model (R. B. Zajonc and G. B. Markus, 1975) and the resource dilution hypothesis (e.g., A. Anastasi, 1956).
KP: spacing & sex composition of siblings; academic outcomes; high school students
DE: FAMILY-STRUCTURE; SIBLINGS-; ACADEMIC-ACHIEVEMENT; HIGH-SCHOOL-STUDENTS; ADOLESCENCE-
CC: 3550; 35
PO: Human
AG: Adolescent
UD: 9103
AN: 78-08461
JC: 1758
TI: Acquired and developmental spelling dyslexia.
AU: Prior,-Margot-R.; McCorriston,-Mary
IN: La Trobe U, Bundoora, Australia
IS: 0093934X
LA: English
PY: 1983
AB: Describes 2 cases of acquired spelling dyslexia in males aged 60 and 66 yrs. and 1 case of developmental spelling dyslexia in an 111/2-yr.-old boy, along with accounts of their performance on various psycholinguistic tasks. It is argued that there is some evidence that spelling dyslexia may exist in developmental form but that parallels are difficult to draw because of the different histories of child and adult cases. It is suggested that features of surface dyslexia exist in at least a proportion of spelling-dyslexic cases and that this may be influenced by level of premobid reading skill. (25 ref) (PsycLIT Database Copyright 1984 American Psychological Assn., all rights reserved)
KP: developmental & acquired spelling dyslexia; 11.5 & 60 & 66 yr. old males
DE: DYSLEXIA-; SPELLING-; ETIOLOGY-; SCHOOL-AGE-CHILDREN;
CHILDHOOD-; ADULTHOOD-
CC: 3250; 32
PO: Human
AG: Child; Adult
UD: 8404
AN: 71-09854
JC: 1927

No. Records Request
1: 1469 SIBLINGS
2: 2982 ACADEMIC-ACHIEVEMENT in DE
3: 41 #1 and #2
4: 182 FAMILY-SIZE
5: 8 #3 and #4
6: 35568 PY=1989
7: 3 #5 and PY=1989
8: 6 POWELL-BRIAN
9: 921 SPELLING
10: 639 DYSLEXIA
11: 1 (SPELLING DYSLEXIA) in TI
Acquired and developmental spelling dyslexia.

Prior, M. R.; McCorriston, M.
La Trobe U, Bundoora, Australia

Brain-and-Language; 1983 Nov Vol 20(2) 263-285

Describes 2 cases of acquired spelling dyslexia in males aged 60 and 66 yrs. and 1 case of developmental spelling dyslexia in an 11 1/2-yr.-old boy, along with accounts of their performance on various psycholinguistic tasks. It is argued that there is some evidence that spelling dyslexia may exist in developmental form but that parallels are difficult to draw because of the different histories of child and adult cases. It is suggested that features of surface dyslexia exist in at least a proportion of spelling-dyslexic cases and that this may be influenced by level of premorbid reading skill. (25 ref) (PsycLIT Database Copyright 1984 American Psychological Assn., all rights reserved)

developmental & acquired spelling dyslexia: 11.5 & 60 & 66 yr. old males

DYSLEXIA--; SPELLING--; ETIOLOGY--; SCHOOL-AGE-CHILDREN--; CHILDHOOD--; ADULTHOOD--

SIBLINGS
ACADEMIC-ACHIEVEMENT in DE
#1 and #2
FAMILY-SIZE
#3 and #4
PY=1989
#5 and PY=1989
POWELL-BRIAN
SPELLING
DYSLEXIA
(SPELLING DYSLEXIA) in TI
PSYCHOLOGY-TODAY
PSYCHOLOGY-TODAY in JN

Marked in Search: #13
TI: Counselors of taste.
AU: Solomon,-Michael-R.
IN: Rutgers U School of Business, NJ, US
JN: Psychology-Today; 1988 Jan Vol 22(1) 50-53
IS: 00333107
LA: English
PY: 1988
AB: Discusses the role of personal consultants in helping consumers make choices in such areas as purchasing goods or services, financial planning, and home decorating. (0 ref) (PsycLIT Database Copyright 1988 American Psychological Assn., all rights reserved)
KP: role of personal consultants; purchasing & financial & decorating choices; consumers
DE: PROFESSIONAL-CONSULTATION; CONSUMER-BEHAVIOR; CHOICE-BEHAVIOR; DECISION-MAKING

No. Records Request
1: 1469 SIBLINGS
2: 2982 ACADEMIC-ACHIEVEMENT in DE
3: 41 #1 and #2
4: 182 FAMILY-SIZE
5: 8 #3 and #4
6: 35568 PY=1989
7: 3 #5 and PY=1989
8: 6 POWELL-BRIAN
9: 921 SPELLING
10: 639 DYSLEXIA
11: 1 (SPELLING DYSLEXIA) in TI
12: 160 PSYCHOLOGY-TODAY
13: 160 PSYCHOLOGY-TODAY in JN
14: 1 AN=78-08324

TI: Supporting the SIDS family.
AU: Mandell,-Frederick; McClain,-Mary
IN: Children's Hosp Medical Ctr., Boston City Hosp. Massachusetts Ctr. for Sudden Infant Death Syndrome, US
JN: Pediatrician; 1988 Vol 15(4) 179-182
CO: PEDIEV
IS: 03001245
LA: English
PY: 1988
AB: While pediatricians are often uncomfortable following an unexpected loss of an infant due to sudden infant death
syndrome (SIDS) in their practice, they are in a unique position to meet the needs of parents and siblings. The pediatrician can alleviate guilt by providing information in a sensitive manner, explain autopsy results, provide guidance for surviving children, and understand the effects of loss on a subsequent pregnancy. Parents have consistently reported how beneficial it was when pediatricians took the time to listen to their concerns and problems following a sudden and unexpected infant death. (PsycLIT Database Copyright 1991 American Psychological Assn., all rights reserved)

 KP: role in meeting needs of parents & siblings of SIDS infant; pediatricians
 DE: NEEDS-; PEDIATRICIANS-; SUDDEN-INFANT-DEATH; PARENTS-; SIBLINGS-
 CC: 3400; 3300; 33
 PO: Human
 UD: 9103
 AN: 78-08324
 JC: 3379

No. | Records | Request
---|--------|---------
1:  | 1469   | SIBLINGS
2:  | 2982   | ACADEMIC-ACHIEVEMENT in DE
3:  | 41     | #1 and #2
4:  | 182    | FAMILY-SIZE
5:  | 8      | #3 and #4
6:  | 35568  | PY=1989
7:  | 3      | #5 and PY=1989
8:  | 6      | POWELL-BRIAN
9:  | 921    | SPELLING
10: | 639    | DYSLEXIA
11: | 1      | (SPELLING DYSLEXIA) in TI
12: | 160    | PSYCHOLOGY-TODAY
13: | 160    | PSYCHOLOGY-TODAY in JN
14: | 1      | AN=78-08324
15: | 30972  | MENTAL
16: | 9361   | ILLNESS
17: | 9783   | LA=FRENCH
18: | 97     | (MENTAL ILLNESS) and LA=FRENCH

Marked in Search: #18
TI: Dangerosite. Etude historique. (Historical study of dangerousness.)
AU: Senninger, -J.-L.
IN: Ctr Hospitalier Specialise, Unite pour Malades Difficiles, Sarreguemines, France
JN: Information-Psychiatrique; 1990 Sep Vol 66(7) 689-696
IS: 00200204
LA: French
PY: 1990
AB: Discusses the succession of concepts of dangerousness throughout the history of psychiatry and criminology. Dangerousness before the birth of psychiatry; as the basis of psychiatry; and as a structural, conjunctural, and independent element of mental illness is considered. The dangerousness of criminals, criminal thought, and the dangerous state are discussed. (English, Spanish & Italian abstracts) (PsycLIT Database Copyright 1991 American Psychological Assn., all rights reserved)
KP: psychiatric & criminologic history of concepts of dangerousness
DE: DANGEROUSNESS-; PSYCHIATRY-; CRIMINOLOGY-; HISTORY-
CC: 3200; 32
PO: Human
UD: 9106
AN: 28-74323
JC: 1297
No. Records Request
1: 1469 SIBLINGS
2: 2982 ACADEMIC-ACHIEVEMENT in DE
3: 41 #1 and #2
4: 182 FAMILY-SIZE
5: 8 #3 and #4
6: 35568 PY=1989
7: 3 #5 and PY=1989
8: 6 POWELL-BRIAN
9: 921 SPELLING
10: 639 DYSLEXIA
11: 1 (SPELLING DYSLEXIA) in TI
12: 160 PSYCHOLOGY-TODAY
13: 160 PSYCHOLOGY-TODAY in JN
14: 1 AN=78-08324
15: 30972 MENTAL
16: 9361 ILLNESS
17: 9783 LA=FRENCH
18: 97 (MENTAL ILLNESS) and LA=FRENCH
19: 639 DYSLEXIA
20: 3190 LEARNING-DISABILITIES
21: 3770 DYSLEXIA or LEARNING-DISABILITIES

Marked in Search: #21
TI: Multisensory approaches for teaching handwriting to learning-disabled children.
AU: Reis,-Elizabeth-M.
IN: City U New York, Bernard M. Baruch Coll, US
Describes ways in which teachers can deliver instruction to address 4 handwriting skills, based on research emphasizing the use of multisensory approaches for teaching handwriting to children with learning disabilities. The skills are (1) copying manuscript, (2) the correct production of b and d reversals, (3) the correct use of uppercase manuscript formations, and (4) the production of legible cursive writing. For each skill, a rationale and a step-by-step procedure section are provided, with an emphasis on task analysis, overlearning, and monitoring. (PsycLIT Database Copyright 1991 American Psychological Assn., all rights reserved)

multisensory procedures for teaching handwriting skills; learning disabled children

TEACHING-METHODS; HANDWRITING--; LEARNING-DISABILITIES; ELEMENTARY-EDUCATION

1: 1469 SIBLINGS
2: 2982 ACADEMIC-ACHIEVEMENT in DE
3:  41 #1 and #2
4:  182 FAMILY-SIZE
5:   8 #3 and #4
6: 35568 PY=1989
7:   3 #5 and PY=1989
8:   6 POWELL-BRIAN
9:  921 SPELLING
10:  639 DYSLEXIA
11:   1 (SPELLING DYSLEXIA) in TI
12:  160 PSYCHOLOGY-TODAY
13:  160 PSYCHOLOGY-TODAY in JN
14:   1 AN=78-08324
15: 30972 MENTAL
16:  9361 ILLNESS
17:  9783 LA=FRENCH
18:   97 (MENTAL ILLNESS) and LA=FRENCH
19:  639 DYSLEXIA
20:  3190 LEARNING-DISABILITIES
21:  3770 DYSLEXIA or LEARNING-DISABILITIES
22:  2982 #2

Marked in Search: #22

Early school entry and subsequent academic problems.

Morton,-Larry-L.; Courneya,-Noella-M.
54 learning-impaired students (Grades 5-8) and 54 age and sex-matched, normal-achieving controls were categorized according to the time of the year of their birth. Ss born in the last quarter of the year (October-December) and who started school early as indicated by school records were defined as early entry (EE) Ss. The groups were evaluated for incidence of EE Ss, achievement, and self-esteem. The incidence of EE Ss was higher than expected in the group of learning-impaired Ss; the academic achievement of EE Ss was low in the control group; and self-esteem of the learning impaired was higher for EE Ss, but only for those who had not been formally labeled as learning disabled. Formal labeling may impact negatively on self-esteem. (PsycLIT Database Copyright 1991 American Psychological Assn., all rights reserved)


Laurillard, Diana M. "Interactive Video and the Control of Learning." *Educational Technology*, 24, no. 6 (June 1984): 7-15.

Meehan-Black, Elizabeth C. *The Effects of Two Methods of Course-Related Library Instruction on Undergraduates Library Skills and Attitudes*, Penn. State University, University Park, Penn., 1981. ERIC ED 246 918.


