DOCUMENT RESUME

ED 345 738 IR 054 041

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TITLE Teaching Library Skills: A Source or Process Approach? A Research Study.
PUB DATE 11 Mar 92
NOTE 47p.; Research Study for the Degree of Specialist in Education, Georgia State University.
PUB TYPE Dissertations/Theses - Undetermined (040)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Analysis of Variance; Comparative Analysis; Demography; Elementary Secondary Education; Information Seeking; *Learning Resources Centers; *Library Instruction; Media Specialists; Questionnaires; Surveys; *Teaching Methods
IDENTIFIERS *DeKalb School District GA

ABSTRACT

The study described in this report was designed to determine the dominant approach to library skills instruction in the schools of the DeKalb County School System (Georgia), and whether any relationships existed between certain demographic variables and the approach being used. Library media specialists were asked to respond to a two-part questionnaire to indicate the frequency with which students received instruction in both source-oriented and process-oriented library skills. A t-test was used to determine whether the difference between the frequency of use of the two approaches was statistically significant (less than .001), and possible relationships between any of the demographic variables and the approach being used to teach library skills were tested using an analysis of variance. It was found that, although the responses of the library media specialists indicated the dominance of the source approach to library skills instruction in the DeKalb County schools, a statistically significant relationship (.029) between the level of current assignment and the process-oriented statements indicated that students were receiving more instruction in process oriented library skills. The survey questionnaire and cover letter are appended. (19 references) (MAB)

TEACHING LIBRARY SKILLS:

A SOURCE OR PROCESS APPROACH?

A RESEARCH STUDY

by

MELINDA J. MORIN

Presented in Partial Fulfillment of Requirements
for the Degree of Specialist in Education in
Library Media Technology in the Department
of Curriculum and Instruction
in the College of Education
Georgia State University

Atlanta, Georgia

1992

ABSTRACT

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Purpose

The purpose of this study was to determine the dominant approach to library skills instruction in the schools of the DeKalb County School System in DeKalb County, Georgia, and whether any relationships existed between certain demographic variables and the approach being used.

Methods and Procedures

Media specialists assigned to schools, in the DeKalb County School System, were asked to respond to a two part questionnaire by using a Likert scale to describe the frequency with which students received instruction in both source oriented and process oriented library skills and by providing demographic information. The frequency of responses to each statement was reported, and using the means calculated for the source oriented and the process oriented statements, a t-test was used to determine whether the difference between the means for the two groups of statements was statistically

significant. Possible relationships between any of the demographic variables and the approach being used to teach library skills were tested using an analysis of variance.

Results

The difference between the two means for the source oriented and the process oriented statements was statistically significant at less than .001, and the greater mean for the source oriented statements indicated the dominance of the source approach. A statistically significant relationship at .029 existed between the level of current assignment and the process oriented statements, indicating that students at high schools and junior high schools received more frequent instruction in a larger number of process oriented skills.

Conclusions

While the responses of the library media specialists indicated the dominance of the source approach to library skills instruction in the DeKalb County schools, students were receiving instruction in process oriented library skills.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

Overview

Our democratic government depends on the ability of citizens to make intelligent, informed decisions about issues of both national and local importance; however, before we can make these decisions, we must have access to accurate, up-to-date, and objective information. Furthermore, we must be able to analyze this information and evaluate it with regard to the issue(s) under consideration. The final report by the American Library Association's Presidential Committee on Information Literacy used the following criteria to describe the concept of information literacy, "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (*Information Literacy*, 1991, p. 1). It is essential, therefore, that as many citizens as possible be information literate.

The abilities required to access, analyze, and evaluate information, like all skills, are learned and developed through repetition and practice (Lundin, 1983); and schools provide an ideal location for their introduction and development. Today in our schools, students have access to more information more rapidly and in an

increasing array of formats. How can they choose which, among several possible answers to their questions, are the best answers?

Library media specialists are in a unique position to promote information literacy among the populations whom they serve. Teacher-librarians in Canada, as early as 1985, had begun to design curricula of library skills that emphasized the acquisition and development of information skills, in addition to the more traditional location skills. In 1988, the American Association of School Librarians (AASL) and the Association for Educational Communications and Technology (AECT) published *Information Power: Guidelines for School Library Media Programs*, in response to "...significant changes within education...[and] the effect of expanded access to new sources of information' (p. vii). This publication charges school library media specialists with the responsibility for providing both intellectual and physical access to information (*Information Power*, 1988).

"Traditionally, library media specialists have been associated with instruction of location skills,...[which] involve a knowledge of sources and tools in libraries" (Kuhlthau, 1987, p. 2). A broader view of location skills provides students with the knowledge to conceptualize the system by which information is organized, and this broader view of location skills contributes to Kuhlthau's description of the library as a learning laboratory where location skills can become ingrained habits

through practice (Kuhlthau, 1987). Location skills, however, do not extend beyond locating information to using it. What is required now is a new approach to library skills instruction "...designed to bring the user into contact with special information, whether in book, magazine, film, database, or other physical unit, and to help him/her evaluate and use the desired information or ideas effectively" (Mancall, J. Aaron, and Walker, 1986, p. 19).

Kuhlthau (1987b) refers to the work of Tuckett and Stoffle when she describes three models of bibliographic instruction which have evolved in academic libraries. She goes on to describe three similar models which she states have evolved in school library media centers: "...a source approach, a pathfinder approach, and a process approach" (p. 23). The first model, a source approach, emphasizes teaching students how to locate and use the sources located in their particular library (Kuhlthau, 1987b). The second model, a pathfinder approach, teaches students not only how to locate and use these sources, but also uses the medium of a model search conducted by the library media specialist to describe the relationships that exist among these sources (Kuhlthau, 1987b). The third model, a process approach, uses research into information-seeking behavior to guide students through the levels of information needs and enables them to use information for learning (Kuhlthau 1987b). It involves teaching students not only how to locate information, but also the *process* of a search for information that

incorporates information and thinking skills. The importance of thinking about information is further emphasized in *Information Literacy* (1991) as part of a process oriented approach to library skills instruction that utilizes information resources as a basis for learning and problem solving.

Statement of the Problem

The purpose of this study is to determine the dominant approach to library skills instruction in the schools of the DeKalb County School System in DeKalb County, Georgia. In order to determine this, the study sought answers to the following questions:

1. Is the source or process approach being used more frequently to teach library skills?

2. Is there a relationship between certain demographic variables and the approach being used?

Significance of the Study

The significance of this study may be described as twofold. The data collected from this study could provide the basis for an analysis of existing library skills instructional programs in the DeKalb County School System and recommendations for future design modifications. "The emerging theoretical base for library instruction combining learning theory, research in information-seeking behavior, and a broader view of library skills provides a framework for assessing

existing instruction and developing new programs" (Kuhlthau, 1987b, p. 27). Moreover, Eisenberg and Brown (1990) identified the source or process orientation of library skills instructional programs as a potential area for research.

Assumptions and Delimitations

This study was delimited to the library media specialists assigned to schools in the DeKalb County School System in DeKalb County, Georgia.

Definition of Terms

The following definitions describe how certain terms are used in this study:

Information literacy: the ability to effectively access and evaluate information for a given need (Breivik, 1985).

Source Approach: an approach to teaching library skills that emphasizes locating and using sources within a particular library (Kuhlthau, 1987b).

Process Approach: an approach to teaching library skills that emphasizes the *process* of a search for information that incorporates location, information and thinking skills (Kuhlthau, 1987b).

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Background

Recent developments in the field of instructional technology have had a direct impact on the quality, quantity, and format of the information available to both educators and students. As a result, education professionals, including library media specialists, have been encouraged to reexamine the instructional objectives of library media programs used to prepare students to function in an information society. "Library media specialists are responsible for ensuring that skills, knowledge, and attitudes concerning information access, use, and communication are an integral part of the school curriculum" (*Information Power*, 1988, pp. 31-32). Teaching library skills is a primary responsibility of library media specialists and as such, it is the subject of many articles appearing in professional journals, papers presented at professional conferences, and descriptive studies. One of the more comprehensive articles by Kuhlthau (1987) describes the evolution of library skills from a narrow context, in which students are taught only how to locate information, to a broader context that incorporates information [management] skills and [critical] thinking skills which assist the student in using information to meet a need.

Reading related literature made the researcher aware of the concentration of articles focusing on three types of library skills: 1) location skills, 2) information skills, and 3) thinking skills. Further reading indicated the existence of three models of library skills instruction that are directly related to the skills being taught: 1) the source approach, 2) the pathfinder approach, and 3) the process approach (Kuhlthau, 1987b). This review is organized on the basis of the library skills, the approaches to teaching these skills and their applications, the respective role(s) of the library media specialist, and how the acquisition of library skills contributes to the achievement of information literacy.

Library Skills

Traditionally, library media specialists have been associated with teaching students how to locate information. In order to do so, it is necessary to familiarize them with the organization and function of both the library media center and the sources of information. This type of skill provides students with knowledge that is useful on a local level, but which may be of only limited use outside the particular library.

Kuhlthau (1987) describes library skills instruction as incorporating both location skills and interpretation skills. This particular description of interpretation skills includes both information skills and thinking skills:

> Interpretation skills involve how information is used after it is located. Thinking about information, seeking further information based on expanding thoughts, and preparing to present information to others incorporate a sequence of interpretation skills. Recalling, summarizing, paraphrasing, and extending are interpretation skills. (p. 3).

This broader view of library skills not only focuses the students' attention on the information within the library collection, but also provides them with the means to use that information for a purpose.

"When students apply information skills to assignments, exercises, test questions, and other school and personal needs, they are engaged in information problem-solving" (Eisenberg and Berkowitz, 1992, p. 27). The library media center, when perceived as a center of information, is a natural place to practice information skills (Hubbard, 1987). Given the overwhelming quantity of information available to students, it is essential to provide them with the means to organize it in a manner that has meaning for them. Mancall et al. (1986) describes instruction in information management skills as essential to providing students with the means of controlling lifetime learning

needs. Marland, cited in Cleaver (1987), includes these skills in a proposed information skills curriculum: "selection, rejection, evaluation, organization, topic definition, and question definition" (p. 30). These skills are broadly applicable to information regardless of the format in which it is presented and directly related to critical thinking skills (Cleaver, 1987).

Two issues germane to information skills that were raised by Cleaver (1987) include thinking about information in terms of its intrinsic value, specifically the evaluation of information based on its accuracy or currency, and its ethical treatment. With the means available to access and alter the content of machine readable data files, she expressed concern about the potential for both plagiarism and copyright violation(s). For this reason, she suggests including ethical standards in information skills instruction.

Information Skills in the Curriculum: Developing a School-based Continuum by Haycock (1985) both provides a rationale for the integration of instruction in information skills with the curriculum and describes five steps that may be taken to implement an information skills continuum at the building level. In addition, there are two lists of information skills, corresponding to the primary and intermediate levels of elementary school, and a sample information skills program intended for students in grade four through the seventh grade. The

information skills program is organized into six groups of skills clusters: "1) resource center orientation, 2) research strategies, 3) locating information, 4) acquiring and analyzing information, 5) organizing and recording information, and 6) communicating and presenting information" (p.11).

The Supervisor's Subcommittee on Information Skills of the Washington Library Media Association prepared *[The] Information Skills Curriculum Guide: Process, Scope, and Sequence* in 1987. It is a curriculum guide for information skills instruction that divides information skills into twelve steps and identifies the level of each step in Bloom's Taxonomy of Educational Objectives. In addition to the statement of philosophy, each step is prefaced with a brief description of the process of information searching and includes a description of the skills required at that step. A scope and sequence chart, a bibliography, and a sample lesson plan form are also provided in the guide.

Eisenberg and Berkowitz (1992) describe the Big Six Skills approach to information problem-solving in terms of an integrated instructional model with three levels. At the first level, students are taught to recognize the existence of information problems and a process approach for solving them. The Big Six Skills are introduced as a step-by-step process at the second level; they include: "...1. Task Definition,

2. Information Seeking Strategies, 3. Location and Access, 4. Use of Information, 5. Synthesis, and 6. Evaluation" (p. 28). At level three, the more specific components of the Big Six Skills are introduced. Students acquire these skills through participation in a series of curriculum-based implementation activities; however, they should be aware of where specific activities fit in the Skills heirarchy. These skills provide students with strategies for meeting information needs and help them establish a pattern for solving information problems.

Thinking skills are closely related to information skills, as the design of information skills instruction must first take into consideration the cognitive levels of development of the students for whom the instruction is intended (Bertland, cited in Kuhlthau, 1987b). If instruction in a developing skill is to be effective, the student must be developmentally ready to learn the skill and perceive the effectiveness of using the skill to solve a "...personal cognitive problem" (Mancall, et al., 1986, p. 22). Four categories of thinking skills delineated by Smith (1987) include: "1) problem solving, 2) decision making, 3) critical thinking, and 4) creative thinking" (p. 39). A key idea behind problem solving and learning how to learn in a library, according to Kuhlthau (1987b), is teaching library resources as evidence to be examined rather than as quick answers. Furthermore, Lundin states that users need the skills of analysis, synthesis, and

evaluation, to make effective use of the information they have obtained (Lundin, 1983).

Approaches to Teaching Library Skills

Kuhlthau (1987b) describes the evolution of library skills instruction in terms of three models: 1) the source approach, 2) the pathfinder approach, and 3) the process approach.

The source approach focuses on teaching students how to access information within a particular library. While students acquire knowledge about specific sources, this knowledge is of value primarily at a local level and does not transfer well to other situations (Kuhlthau, 1987b).

The pathfinder approach presents students with a model search and leads them through a sequence of sources, usually progressing from general to specific. While this approach provides students with knowledge about the sources and their relationships to each other, like the source approach, it is of essentially local value; moreover, it does not address either the identification of a specific need for information nor the evaluation of information source(s) (Kuhlthau, 1987b).

Research into information seeking behavior has influenced the development of the process approach. Eisenberg and Brown (1990),

describe the emphasis of the process approach as being placed on "...developing transferable cognitive skills that should increase students' effective use of information in general as well as their use of specific libraries and resources" (p. 102). Kuhlthau (1987b) indicates that library [skills] instruction can be designed to accommodate the various levels of information need; and students' awareness of the levels of their information needs can assist them in developing the skills required to meet those needs.

Designing process oriented instruction was the problem investigated by Kuhlthau in her doctoral dissertation. She studied two groups of high school seniors while they used the library for two assigned research papers. By learning about the process her students were experiencing, she planned to design instruction to assist students in learning more about the research process. As a result of her study, she designed a model of the library research process that illustrates six successive stages: " 1) initiating a research assignment, 2) selecting a topic, 3) exploring information, 4) forming a focus, 5) collecting information, and 6) preparing to present" (Kuhlthau, 1985, p. 37-39), and developed strategies to assist students. She concluded that students need guidance through the levels of thinking and by understanding the research process, they are able to use sources more intelligently and transfer their ability to other, similar situations in other libraries.

The stages identified by Kuhlthau correspond, to an extent, with the steps identified by Walisser in her school-based research strategy which is designed for students in kindergarten through the seventh grade. Walisser (1985) describes the nine steps in her strategy as skills clusters. They include: " 1) identification of topic, 2) webbing, 3) selection of suitable materials, 4) selection of needed information, 5) recording sources of information, 6) notetaking, 7) outlining, 8) preparation for presentation, and 9) presentation" (p. 20).

Similar in concept to the conventional research process is the process of inquiry. Inquiry, as described by Sheingold (1987), "is a complex process that includes formulating a problem or question, searching through and/or collecting information to address the problem or question, making sense of that information, and developing an understanding of, point of view about, or 'answer' to the question" (p. 81). The central role played by questions in providing a structure for the student to use in gathering information distinguishes the inquiry process from the typical research process. The inquiry process depends on *real* problems for its impetus and students are encouraged to guide their search(es) by constructing appropriate questions. As questions are generated in response to new information, both information selection and organization are affected. The role of the teacher/librarian is to model question formulation and application to

research. An important aspect of the inquiry process is the gradual assumption of responsibility by the student, as the teacher/librarian gradually cedes responsibility to him.

The Role of the Library Media Specialist

The descriptions of the role(s) of the library media specialist are numerous, ranging from facilitator (Breivik, 1987) guide (Sheingold, 1987), mediator (Hughes, 1986), to catalyst (Cleaver, 1987). Mancall, et al. (1986) describes the *raison d'etre* of the library media specialist as promoting access to a broad range of information and ideas. Among the primary functions of the media staff are: 1) collection development, provision of a well-equipped information laboratory; 2) organization of media, classification and cataloging of media; 3) information guidance services, a mediation function of the library media specialist to assist students in locating, interpreting, and evaluating media and information; 4) media production, a process that promotes the development of thinking skills and serves to acquaint students with a variety of media formats as a means of communicating ideas; 5) student instruction, through which students are guided to use information effectively, and 6) instructional development services, which help teachers develop learning alternatives that communicate meaningful content (Mancall et al., 1986) Hughes (1986) casts the library media specialist in the role of mediator of learning experiences. In this capacity, the media specialist assists students in becoming more

actively involved in developing an understanding of the full range of "...thinking skills and processes" (p. 33). Moreover, she notes the unique position of the library media specialist in the school and emphasizes the positive aspects of using it to communicate with teachers and "model a focus on thinking" (p. 33).

The *Key Elements of Generic Teaching Strategies for Developing Student Thinking* (Sheingold, 1987) describes how library media specialists can provide direct instruction for more effective thinking:

1. Demonstrate familiarity with the sequence of student thinking skill development by sequencing both cognitive skills and learning modalities.
2. Tell students at the beginning of a lesson what they will be doing and why.
3. Use familiar content to teach new thinking skills; use familiar thinking skills to teach new content.
4. Ask broad, open starter questions designed to stimulate desired thought processes.
5. Wait, after asking a question and before any responses, to allow students time to think. Wait after a student's response

before commenting or calling on another student.

6. Record initial responses where they are visible to students.
7. Listen and encourage students to listen to initial student responses and identify elements that may need to be clarified or verified.
8. Ask appropriate follow-up questions based on initial student responses. Structure opportunities for students to ask follow-up questions.
9. Develop student understanding of the language and structure of thinking. Words such as *infer, clarify, verify, accurate, relevant,* and *specific* are critical to clear thinking.
10. Provide structure, opportunities and encouragement for students to verbalize their thinking skills processes. (pp. 34-36)

Summary

We are living during a period of time which has been characterized as an Information Age (*Information Literacy*, 1991), an

information society (Loertscher, 1991), and by an information explosion (Kuhlthau, 1987). At the same time, educational expectations have changed from developing a select population of literate professionals to educating all students to become literate (Sheingold, 1987). The ability to locate, comprehend, and apply information, according to Kuhlthau (1987b), is essential to being literate in an information society. Breivik (1987) stated that a "quality education in an information society must include skills related to the accessing and evaluating of pertinent information for problem solving" (p. 45). Neither the source approach, nor the pathfinder approach assists students in developing skills beyond those required to locate information. In citing a study conducted by Dewees (1987), Eisenberg and Brown (1990) stated, "Findings of the study suggest that a process-oriented approach can be more effective than an approach that focuses on use of individual sources" (p. 103). By using a process approach to library skills instruction, it may be possible to achieve the objectives of providing both physical and intellectual access to information that were articulated in *Information Power*.

CHAPTER THREE

METHODOLOGY AND PROCEDURES

This was a descriptive study of the library media instructional programs extant in the Dekalb County School System, Dekalb County, Georgia, 1991-1992. The purpose of the study was to determine the dominant approach to library skills instruction. To gather information, a survey instrument (see Appendix A) was designed by the author and sent to all the library media specialists assigned to elementary, junior high, and high schools in the DeKalb County School System.

Population

The DeKalb County School System, in DeKalb County, Georgia, is the largest single school system in the southeastern United States. There are 102 schools (77 elementary schools, 6 junior high schools, and 19 high schools) serving a student population of more than 74,000. These schools are staffed by 121 media specialists. There is also a media specialist assigned to Fernbank Science Center and another assigned to serve the special education centers; however, the frame for this study consisted of only those library media specialists assigned to schools or 121 of the total of 123 practicing library media specialists employed by the DeKalb County School System.

Instrumentation

A two-page questionnaire was designed by the author to provide an answer to the research questions. The questionnaire was divided into two parts. The first part consisted of seventeen statements describing library skills. Using a Likert scale, the respondents indicated the frequency with which instruction is provided in these skills. The second part included demographic questions and a section for open-ended comments. The statements were formulated based on the library skills included in: *[The] Information Skills Curriculum Guide*, prepared by the Supervisor's Subcommittee on Information Skills of the Washington Library Media Association; *Information Skills in the Curriculum: Developing a School-Based Continuum*, by Haycock (1985); and *Developing a School-Based Research Strategy, K-7*, by Walisser (1985). Using the definitions given in Chapter One, statements a., c., g., i., j., k., m., n. and q. are source oriented, as they describe library skills used by students to locate sources/information; while statements b., d., e., f., h., l., o., and p. are process oriented, as they describe not only how information may be located, but evaluated and used by students either to answer a question, to solve a problem, or to develop a point of view about an issue.

A class of 12 library media specialists evaluated the questionnaire and changes were made on the basis of their suggestions

concerning statement content, phrasing, etc. Moreover, Mr. Frank Winstead, the Director of Educational Media; Dr. Blanche Browne and Mrs. Dot Hanson, the Educational Media Coordinators; Mrs. Janice Shelnutt, the Director of the Professional Library; and Mrs. Peggy Healy, an administrator in the processing department; either library media specialists or former library media specialists currently assigned to the Educational Media Department of the DeKalb County School System, were sent copies of the questionnaire to evaluate.

Data Collection

The questionnaires were sent to the respective media specialists on January 16, 1992, using the systemwide courier. Each questionnaire was coded to permit the researcher to send a reminder to media specialists who had not responded by January 23, 1992; however, all responses remained confidential.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS-X) computer programs on the mainframe at Georgia State University. Descriptive and inferential analyses of the data were conducted in the following ways:

1. The frequency of responses to each statement was reported.

2. Responses to statements a through q were accorded a value from 5 to 1 corresponding with the letters: a. always, b. frequently, c. occasionally, d. seldom, and e. never.

3. Nonresponses were accorded a value of 0.

4. A mean was calculated for each statement, beginning with statement a and ending with statement q. Then, the statements were grouped on the basis of whether the statements were either source or process oriented and a mean was calculated for both groups of statements. Using the means for both groups of statements, a t-test was performed to determine whether the difference between these means was statistically significant.

5. The demographic variables were considered: level of current assignment, student population, and number of either full-time or part-time media staff members, and the responses were analyzed to determine whether a difference existed between any of these variables and the type of library skills being taught. This was accomplished using a linear combination method. Each of the source oriented library skill statements was assigned a value that represented the mean of all the responses to that statement within a specific category (e.g. Elementary School). The means for all the source statements were averaged and the averages for the different categories were compared to determine whether a difference existed among the averages for the categories within a demographic variable (e.g. Level of Assignment). The same procedure was followed using the process oriented library

skill statements. After comparing the averages to the respective types of statements within the demographic variables, it was possible to ascertain whether a relationship existed between any of the demographic variables and the types of library skills being taught as well as the type of approach being used.

CHAPTER FOUR

RESULTS

The purpose of this study was to determine the dominant approach to library skills instruction in the schools of the DeKalb County School System, DeKalb County, Georgia. In order to determine this, answers were sought to two questions. The first question concerned whether the source or process approach was being used more frequently to teach library skills, and the second question examined the relationships which might have existed between any of the demographic variables and the approach being used. The types of skills being taught were the basis for determining which approach was dominant.

The DeKalb County School System employs 123 practicing media specialists of whom 121 are actually assigned to schools. Using the systemwide courier, questionnaires were sent to the 121 media specialists assigned to schools. Of the 121 questionnaires, eighty-six (71%) were returned; however, ten (11%) of these were not completed. Only the available data from these incomplete questionnaires were utilized.

The media specialists were asked to indicate the frequency with which the students in their schools receive instruction in specific library skills (see Table 1).

Table 1
Frequency of Responses (n = 86)

Abbreviated Statements		Ratings[a] a.	b.	c.	d.	e.	0
a.	Location of sources of information	55	28	3	0	0	0
b.	Design of simple search strategies	18	41	21	4	1	1
c.	Use of audiovisual equipment	12	26	36	10	1	1
d.	Interpretation of tabular data	6	12	37	19	8	4
e.	Basic study skills	13	32	29	10	2	0
f.	Source/information evaluation	6	31	30	15	2	2
g.	Use of the table of contents/index	42	42	2	0	0	0
h.	Media production	1	4	43	25	13	0
i.	Cross referencing	30	42	12	2	0	0
j.	Parts of books	43	25	12	5	1	0
k.	Discrimination between fiction/nonfiction	51	22	9	2	2	0
l.	Research question/ search formulation	13	35	18	6	3	11
m.	Discrimination among types of information	28	34	13	1	0	10
n.	Care of audiovisual media	7	23	26	15	4	11
o.	Information analysis	4	21	23	23	3	12
p.	Information organization	13	28	24	9	2	10
q.	Source access via the card/online catalog	33	26	2	0	12	13

[a]Scale: a. always b. frequently c. occasionally
d. seldom e. never 0.nonresponse

A mean was calculated for statements a through q, using the numerical values assigned to each of the letters on the Likert scale. (e.g. A response of *a*, indicating always, was assigned a numerical value of 5.) Then, the statements were grouped on the basis of whether the statements were either source or process oriented (see Tables 2 and 3).

Table 2

Mean Score for Source Oriented Statements

Abbreviated Statements		n	Mean	Standard Deviation
a.	Location of sources of information	86	4.60	.56
c.	Use of audiovisual equipment	85	3.45	.92
g.	Use of the table of contents/index	86	4.47	.55
i.	Cross referencing	86	4.16	.75
j.	Parts of books	86	4.21	.97
k.	Discrimination between fiction/nonfiction	86	4.37	.93
m.	Discrimination among types of information	76	4.17	.76
n.	Care of audiovisual media	75	3.19	1.04
q.	Source access via the card/online catalog	73	3.93	1.41

Table 3

Mean Score for Process Oriented Statements

Abbreviated Statements		n	Mean	Standard Deviation
b.	Design of simple search strategies	85	3.84	.86
d.	Interpretation of tabular data	82	2.87	1.03
e.	Basic study skills	86	3.51	.97
f.	Source/information evaluation	84	3.29	.93
h.	Media production	86	2.48	.85
l.	Research question/ search formulation	75	3.65	.99
o.	Information analysis	74	3.00	.99
p.	Information organization	76	3.54	1.00

In order to determine whether the difference between the means for both groups was statistically significant, a grand mean was calculated for each group of statements and a t-test was performed using these means (see Table 4).

Table 4

t-Test Results for Comparison of the Means of Source and Process Oriented Statements

Variable	n	Mean	t Value	Degrees of Freedom	*p* Value
Source	64	36.67	16.92	63	.000
Process	64	26.61			

As the *p* value was less than .001, it is unlikely that the difference between the two means could have occurred by chance. The greater mean score for the source oriented statements indicates that overall these statements received more positive responses more frequently, and therefore, the dominant approach to library skills instruction being used was the source approach.

An analysis of variance was conducted to determine whether a relationship existed between any of the demographic variables: level of current assignment, student population, and number of either full-time or part-time media staff members, and the approach being used to teach library skills. The only statistically significant results concerned the respondents' levels of employment and the process oriented statements. The dependent variable was the process oriented statements and the independent variable was the level of employment.

Table 5

Mean Score for Process Oriented Statements by Level

Level of Employment	n	Mean
Elementary	42	25.36
Junior High School	06	28.67
High School	16	29.13

Table 6

Difference in Process Oriented Statements Between Levels of Employment

Source	Sum of Squares	DF	Mean Square	F	Significance of F
Level	192.508	2	96.254	3.738	.029

The results indicated that media specialists who were assigned to high schools and junior high schools, respectively, responded that students at their schools received more frequent instruction in a larger number of process skills.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

Findings

The purpose of this study was to determine both the dominant approach to library skills instruction in the schools of the DeKalb County School System in DeKalb County, Georgia, and whether any relationships existed between certain demographic variables and the approach being used. Based upon the results from the t-test performed using the means for the source oriented and the process oriented statements, it can be concluded that source oriented library skills are being taught more frequently and therefore, the dominant approach to library skills instruction being used is the source approach. The only demographic variable for which there was statistically significant data was the level of current assignment. According to the data, students in junior high school and high school receive instruction in process oriented skills more frequently.

Discussion

While the data tends to support the conclusion that the dominant approach to library skills instruction is the source approach,

there were also data indicating that process oriented skills are being taught, albeit less frequently, to students who are more often enrolled in either junior high school or high school. This information would seem to suggest a relationship between the students' cognitive levels of development, their developmental readiness to learn these skills, and their ability to perceive these skills as a means to solve a "...personal cognitive problem" (Mancall, et. al., 1986, p. 22).

On the other hand, Haycock (1985) and Walisser (1985) have indicated that process oriented skills can be taught to younger students. The instruction these younger students received, however, was the result of carefully designed sequences of instructional events that form an integral part of a curriculum of library skills instruction. "Without a school-based continuum of information skills, classroom teachers and teacher-librarians face the difficulty and even the professional danger of operating in a vacuum, without a framework or 'curriculum'" (Haycock, 1985, p. 11).

This study was delimited to the media specialists assigned to schools in the DeKalb County School System, DeKalb County, Georgia, during the 1991-1992 academic year. Further studies could extend beyond the boundaries of a single county, more closely examine the respective approaches to library skills instruction by investigating the

extent to which each skill is taught and by whom, and evaluate the effectiveness of the different approaches.

Applications

During the last few years, the Director of Educational Media for the DeKalb County School System has encouraged media specialists to implement both flexible scheduling and resource-based teaching programs at their schools. The school system does not, at this time, have a curriculum of library skills. A carefully structured curriculum based on a continuum of library skills and combined with a research-based strategy could assist efforts to deliver a more uniform instructional program to the students. Moreover, media specialists at all levels would know which types of skills they could expect the students entering their schools to have previously encountered.

The philosophy statement in the *Handbook of Operational Procedures* for the DeKalb County School System library media specialists describes the school system's commitment to providing a quality educational program for students. While the source approach does not assist students in developing skills beyond those required to locate information, the emerging theoretical base for library instruction offers library media specialists an opportunity to reexamine existing programs and to develop innovative programs that concentrate on

imparting skills that assist students in accessing, analyzing, evaluating and applying information to solve information problems.

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Appendix A

Survey Questionnaire

The following statements describe library skills. Please indicate whether students at your school receive instruction in any of these skills by circling the appropriate response.

a. always b. frequently c. occasionally
d. seldom e. never

Students receive instruction concerning:

a. the location of sources of information (e.g. books, audiovisual media) in the library media center
a. b. c. d. e.

b. how to design simple search strategies structured around key words and phrases
a. b. c. d. e.

c. the use of audiovisual equipment (e.g. audiocassette recorder, filmstrip projector, microfiche reader/printer, microcomputer, compact disc player)
a. b. c. d. e.

d. how to interpret tabular data (e.g. graphs)
a. b. c. d. e.

e. basic study skills (e.g. notetaking, paraphrasing, summarizing, outlining, etc.)
a. b. c. d. e.

f. evaluating sources/information on the basis of accuracy, authority, clarity, completeness, objectivity, or relevance
a. b. c. d. e.

g. how to use the table of contents/the index to locate information
a. b. c. d. e.

h. media production techniques (e.g. slide/tape presentations, videotaping, etc.)
a. b. c. d. e.

i. how to use cross references to locate sources/information
a. b. c. d. e.

j. the parts of books (e.g. spine, title page, table of contents, indexes, appendixes)
a. b. c. d. e.

k. how to discriminate between fiction and nonfiction literature
a. b. c. d. e.

a. always b. frequently c. occasionally
d. seldom e. never

l. how to formulate research questions to guide/ structure a search
a. b. c. d. e.

m. how to discriminate among types of information sources (e.g. general reference, periodical, vertical file, and special sources)
a. b. c. d. e.

n. the proper care of audiovisual media
a. b. c. d. e.

o. how to compare/analyze information from different sources on the basis of agreement or disagreement
a. b. c. d. e.

p. how to organize the presentation of information for a specific purpose
a. b. c. d. e.

q. how to access sources using the card/ online catalog
a. b. c. d. e.

Level of current assignment:

_____Elementary School

_____Junior High School _____High School

Student population: _____400-599 _____600-999
_____1000-1199 _____1200-1799
_____1800+

Media staff: Full time
_____Media Specialist(s) _____Media Clerk(s)

Part time
_____Media Specialist(s) _____Media Clerk(s)

Comments:_____
_____
_____

Dear Media Specialist,

I am conducting a study to determine whether the library media instructional programs extant within the DeKalb County School System are more source or process oriented. In order to gather the data I need to complete this study, I have designed the enclosed survey questionnaire. I have encoded the questionnaires as a means of assisting me in determining which school's media specialist(s) have responded; however, all responses will be considered confidential. Please return the questionnaire to me through courier, by January 24, 1992. Thank you.

This study, part of the requirements for a Specialist degree in Library Media Technology at Georgia State University, may assist each of us as we work towards developing effective programs of library skills instruction. A summary of the results will be available in the spring.

Thank you for participating in this study.

Sincerely,

Melinda J. Morin
Media Specialist
Snapfinger Elementary School