IOWA STATE UNIVERSITY
Digital Repository

1981

The relationship of demographic variables to the perceived performance and importance of selected functions of school media specialists

Melvin McKinney Bowie
Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Part of the Curriculum and Instruction Commons

www.manaraa.com

8128802

BOWIE, MELVIN MCKINNEY

THE RELATIONSHIP OF DEMOGRAPHIC VARIABLES TO THE
PERCEIVED PERFORMANCE AND IMPORTANCE OF SELECTED
FUNCTIONS OF SCHOOL MEDIA SPECIALISTS

Iowa State University   PH.D.   1981

The relationship of demographic variables to the perceived

performance and importance of selected functions of

school media specialists

by

Melvin McKinney Bowie

A Dissertation Submitted to the

Graduate Faculty in Partial Fulfillment of the

Requirements for the Degree of

DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Curriculum and
Instructional Media)

Approved:

In Charge of Major Work

For the Major Department

For the Graduate College

Iowa State University
Ames, Iowa

1981

TABLE OF CONTENTS

CHAPTER ONE.   INTRODUCTION

> Butcher? Baker? Candlestick maker? What is our
> profession? What basic principles and values do
> we profess? (Daniel, 1980, p. 107).

In the quote above, Daniel was addressing one of the significant recurring problems under discussion in the library media literature. The problem has been termed the "identity crisis" of media professionals who work in elementary and secondary schools (Burnell, 1979; Vandergrist, 1979; Mugnier, 1979; Fitzgibbons, 1980). Burnell cited Jim Finn and Dale Hamerus as being among the first to articulate the conflict between what media professionals perceived as their role _in_ the educational community and the role expected of them _by_ the educational community. In addressing the problem almost a decade after Finn and Hamerus had articulated it, Burnell (1979) stated:

> Part of the "identity crisis" was caused not by the way
> media personnel view themselves but by the way that
> others view their roles and functions.... But what if
> the desired needs presented to the media specialist
> by others are in conflict with the needs the media
> specialist has identified to fulfill? What part should
> students and staff play in defining the role and func-
> tion of the school media specialist? (p. 134).

Burnell believed that until media personnel in the schools answered these questions, the so-called "identity crisis" problem would continue to plague the profession.

Daniel (1980), however, felt that school media specialists with a strong sense of professionalism would prevent

others from defining their roles and functions for them.

She said:

> Without a sense of professionalism, much will be lost.
> If one looks to others to define a role or status, it
> should be not surprising if that role is reduced to a
> minimum with very little status attached to it. If the
> school media specialist looks to the principal and
> teachers to tell him or her what is needed, the princi-
> pal and teachers will often exert pressure to schedule
> the greatest number of classes in the media center and
> require the media specialist to handle the greatest
> number of students, to produce the largest number of
> mediated materials, or some arbitrary objective. These
> objectives seem to others to be instrumental in achiev-
> ing the end of equipping children to cope with life.
> But school media specialists who exercise their profes-
> sional sense realize that the means to this end are more
> complex, that more is not necessarily better, and that
> possibly smaller, shorter contacts of higher order with
> an intelligent plan underlying the provision of services
> will be a more effective way of attaining the end goal
> (p. 109).

The "identity crisis" of school media personnel has

still another dimension. This side of the problem concerns

the failure of many school media center personnel to decide

allegiance to the field of education or to the field of

librarianship. Vandergrist (1979) and Peterson (1979) be-

lieved that school media specialists function primarily as

teachers of students; therefore, their allegiance belongs to

the field of education. Vandergrist, however, observed that

the reluctance to view the school media specialist as a

teacher is appreciated when an attempt is made to compare a

classroom teacher's allegiance to a subject field and that of

a school media specialist to the same. The relationship

between a teacher of history and a historian is much clearer

than the relationship between a media specialist and a professor of library media.

Peterson (1979) stated that: "Teaching is the key function that is carried out in the media center" (p. 13). He also believed that the role of teacher attached great significance to the work of those in elementary and secondary school media centers and provided risk-takers in the school library media field with opportunities to make noteworthy contributions.

Daniel (1980) argued, however, that there should be little or no confusion about the allegiance of professionals in school media centers. Her stance could be summed in the following statement: "Some would say we are teachers; I will argue that our true profession is librarianship" (p. 107). Expanding her argument, Daniel went on to say: "The stance of the media specialist is _in_ education, not _of_ education" (p. 110). Daniel further pointed out that the work of school media specialists is more similar to the work of public and academic librarians than it is to the work of classroom teachers.

Reasons for the "crisis" have been offered. Vandergrist and Daniel believed that the problem stemmed from confusion about the primary client of the school media specialist, the former arguing for the student, and the latter arguing for the teacher. Fitzgibbons (1980) believed that the occupa-

tional isolation of building-level practitioners intensified the problem of identity among school media professionals.

Mugnier (1979) and Hannigan (1980) believed that the preparation of many school media professionals in current library schools was the primary cause of the problem. Mugnier described the plight of those preparing for service in such schools. Six contingencies were cited as primary causes of the problem:

1. Those who generally employ school media specialists are not trained in library media but in school supervision and classroom education.

2. The professional degree required for state certification is in education, not in library science.

3. Courses prescribed for specific competencies are determined by state departments of education, not by library school faculties.

4. Many school media centers are staffed by a single professional, preventing the new graduate from learning some of the important center functions on the job.

5. The school media specialist's function is determined by either school principals, district supervisors, or more recently, by educational technologists in conjunction with a few officials of state boards of education.

6. The library school degree is being challenged by the educational technology degree, and in many states, the latter is being declared superior.

Hannigan (1980) referred to these disparities in the professional training of many school media specialists as "a study in contradiction", and called for more frequent and intense examinations of the programs which prepare media

personnel for service in the schools.

This problem, which still faces the field at the be-
ginning of a new decade, suggests the desirability of placing
a reevaluation of training programs within a framework of the
school setting and its influence on the current functions of
media professionals.

Statement of the Problem

The problem of this study was to provide information
concerning the relationship between the functions of school
media specialists and the background and demographic variables
associated with professionals who work in school media centers
in Iowa. The perceived involvement of secondary school media
specialists in six functions and the perceived importance of
the functions were related to five variables pertaining to
the background and school settings of certified personnel.

Purpose of the Study

The purpose of the study was to analyze the performance
of secondary school media specialists in six functions, and
to determine the importance of the functions to secondary
media programs, as perceived by school media specialists. It
was also a purpose of the study to relate these perceptions
to the level of training of the media specialist, the number
of years the media specialist had spent in his or her present

assignment, the size of the school district in which the
media specialist was employed, the location of the school
in which the media specialist worked, and the number of
minimum standards met by the center in which the media
specialist was employed.

The following questions were asked:

1. Do media specialists in centers meeting a greater
   number of standards consider a given function more
   important than media specialists in centers meeting
   fewer standards?

2. Do media specialists in large school districts con-
   sider a given function more important than do media
   specialists in small districts?

3. Does the location (Area Education Agency region)
   influence the performance of school media special-
   ists in a given function?

4. Is there a relationship between the type of endorse-
   ment and the functions that school media specialists
   perform?

5. Do media specialists with few years in their present
   assignments engage in a given function less often
   than do media specialists with many years in their
   present assignment?

Need for the Study

Media programs require both materials and activities
in order to accomplish program goals. The Guidelines Com-
mittee which drafted the quantified minimum standards for
the secondary school media centers in Iowa stated: "The
professional person initiates services which change a room
full of materials into a well-functioning center of learning"

(Iowa Department of Public Instruction, 1970, p. 7). There-
fore, what the media specialist does to bring about this
change is important. A number of studies on both the nation-
al level (School Library Manpower Project, 1969, 1975;
Wallington et al., 1971), and the local and state levels
(Gaver, 1971; Van Dreser, 1971; Cantor, 1975; Bucher, 1976;
Clark, 1979; Burnell, 1979) have identified the functions,
competencies, and roles of school media personnel. Few of
these studies have attempted to relate the involvement of
media specialists in center functions to the perceived impor-
tance of the functions. Some initial work was done by the
School Library Manpower Project in its 1974-1975 study of
graduates of six experimental training programs. Subjects
in the study were asked to indicate their performance in seven
areas of media center activities, and to indicate the impor-
tance of the activities to their overall job responsibilities.
Data were analyzed to yield percentages of the respondents
who engaged in each activity area, as well as mean ratings
of the importance of each area. For example, findings were
reported to show that the management function was performed
by 44.5% of graduates from master's degree programs, and that
the area was rated 2.50,on a 0 to 4 scale, in importance by
that group of graduates. No attempt was made in the study to
relate performance ratings and importance ratings of the
functions. Also, no attempt was made to relate the above

ratings to background and demographic variables associated
with the subjects, other than type of training program.

Some work was also done by Loerstcher (1973) to study
the frequency and importance of media center tasks as per-
ceived by media specialists in schools in Indiana. Media
specialists' perceptions of the frequency in which they en-
gaged in media center tasks and the importance of the tasks
were compared with those of classroom teachers. Loerstcher's
purpose was to find a consensus among the two groups concern-
ing selected media services being offered in Indiana senior
high schools. Most of the service areas included in the
study could be classified as "traditional". Therefore, many
of the tasks were concerned with print-oriented activities,
and did not encompass the broader range of tasks associated
with the newer concept of media centers. Loerstcher found
that media specialists differed to some extent in their per-
ceptions concerning the frequency of media center services.
There was, however, a much larger discrepancy between the
perceptions of media center staff and those of teachers as
to the frequency of services. Both teachers and media
specialists generally agreed that the most important services
were acquisition, accessibility, and circulation services as
opposed to instructional development services.

Loerstcher's study provides evidence of the feasibility
of studying the perceived frequency and importance of media

center tasks to determine patterns of service from these centers.

A recent study by Clark (1979) linked perceived frequency and importance of tasks performed by school media specialists to their career objective. In the study, career objective referred to the media specialist's concept of himself/herself as a print-oriented professional. Responses to 57 task statements as to the perceived frequency and importance of the tasks performed, revealed that school media specialists in Kansas still consider themselves as librarians.

Extensive studies involving perceptions of task frequency and task importance have been done in the field of school social work (Costin, 1969; Meares, 1977). The study by Meares compared findings in two studies of the perceived frequency and importance of tasks as they related to the overall achievement goals of school social workers. Subjects in both studies answered two basic questions: (1) "How important do you consider this task for the attainment of social work goals within the school system?" (2) "Can the task appropriately be assigned to a person with less than your level of educational preparation?" Meares found that when respondents rated a task as being very important they also indicated a strong reluctance to delegate the task to others. This finding would indicate that there is a relationship between the perceived importance of an activity and the level of involve-

ment in the activity. When Meares compared the findings of the two studies, it was observed that practitioners in the field of school social work had shifted over a 10-year period in their job emphasis. The earlier study had indicated a clinical-casework approach to the field, while the later study revealed a liaison role between home, school, community, and educational counseling with child and parent. Thus, Meares was able to redefine the field of school social work according to the perceptions of practitioners as to the frequency and importance of tasks performed (Meares, 1977).

In the field of personnel management, the perceived importance of tasks has been recognized as essential to acceptable task performance (Schaeffer, 1977). When a group of manufacturing employees was asked about their feelings concerning the tasks they performed, many complained of the "meaninglessness" of the tasks. When steps were taken to restructure the tasks and to explain their overall importance to the company's operations, there was a marked decrease in absenteeism and the number of turnovers (Schaeffer, 1977).

Research in the library media field to relate current performance patterns of practitioners to characteristics of the school setting could begin to establish a framework for profiling media professionals at the school level. Such a profile could be used as a base on which to reevaluate and improve the preparation of school media personnel. The

construction of such a profile also suggests its potential
as a tool for matching perceptions of school media special-
ists with characteristics of school centers in future
assignments of job responsibilities.

Delimitations

The study was limited to the perceptions of secondary
school media specialists in the state of Iowa who were em-
ployed in schools which took part in the McGrew and
Buckingham Survey (1978). It was also limited to the per-
ceptions of those media specialists who were employed full
time in a single school, and were certified by the Iowa
Department of Public Instruction.

Definition of Terms

For the purposes of this study, the following defini-
tions were used:

1. Media: Printed and audiovisual forms of communica-
   tion including the electronic equipment needed to
   display the audiovisual forms of communication.

2. Media center: An area in a school where a full
   range of information sources, equipment, and ser-
   vices from a media staff are accessible to students
   and faculty (McGrew and Buckingham, 1978, p. 207).

3. Media specialist: A professional person who admin-
   isters or assists in the administration of the pro-
   gram of the media center, and who is assigned to
   work full time in a secondary school media center
   in Iowa. This person must hold one or more of the
   approvals or endorsements for media specialists from
   the Iowa Department of Public Instruction.

4. Function: A unique cluster of job-related activities engaged in by a school media specialist to accomplish a specified goal.

5. Task: Any one of the activities in a cluster of activities which comprises a function of a school media specialist.

6. Number of guidelines: Any number of the total 36 quantified Iowa standards for secondary school media centers that was met by a media center (McGrew and Buckingham, 1978, p. 7).

7. District size: Any one of the seven school district sizes in Iowa based on total district enrollment (McGrew and Buckingham, 1978, p. 5), in which a secondary school media center is located.

8. Location: Any one of the 15 geographic areas assigned to an Area Education Agency in Iowa in which a secondary school media center is located.

9. Endorsement: Any one of the five professional certifications, based on level and type of training, issued to a media specialist by the Iowa Department of Public Instruction.

10. Perception: A personal opinion or stance concerning the frequency of occurrence and importance of a task or activity.

11. Human behavior: An evolving series of physical, mental, emotional, and social processes occurring in human beings. The total mode of learning, including the effective utilization of media and the media program, is dependent upon a knowledge of the human behavior processes and the application of this knowledge to interaction with people (School Library Manpower Project (SLMP), 1973, p. 3).

12. Instructional development: The knowledge, abilities and attitudes associated with curriculum; learning theories as they relate to human growth and behavior; and strategies for teaching and learning within the life-space of the individual, recognizing the home and the total community as contributing elements in his education (SLMP, 1973, p. 6).

13. Planning and evaluation: The design and methods for achieving the goals of the school library media program involving the identification, interpretation, development, implementation and evaluation of all the inherent components of the program. It incorporates assessment, analysis, synthesis, evaluation and recommendations for program development based upon unique educational goals and objectives of the district and school (SLMP, 1973, p. 10).

14. Research: Research as a process is searching, documenting, evaluating, and applying information. Research as a product is a body of recorded and documented knowledge. The process and product of research are integral parts of all aspects of the school library media program (SLMP, 1973, p. 48).

15. Professionalism: The conduct of qualified people who share responsibilities for rendering a service; for engaging in continued study, and for maintaining high standards of achievement and practice within the principles, structure and content of a body of knowledge (SLMP, 1973, p. 51).

16. External cooperation: The purposeful interaction between school media programs and those programs at the regional level when such interaction is initiated by the school media specialist.

CHAPTER TWO. LITERATURE REVIEW

This investigation set out to form the base for a pro-
file of secondary school media specialists. The base was to
be established within the framework of perceptions of prac-
titioners who function within their unique school settings.
It was the opinion of the investigator that the functions
ascribed to media specialists in this paper were of equal
importance in developing the profile. It was also felt that
the development of such a profile should proceed from a base
line of understanding in which meanings, models, activities,
and pertinent findings were clearly delineated. For these
reasons, the main body of the literature review has been
organized around the above mentioned elements for each of the
functions. Additional parts of this chapter discuss the
work and contributions of the School Library Manpower Project
in the library media field, and two earlier studies of the
perceptions of media specialists in Iowa schools.

<div align="center">Significance of the School Library
Manpower Project</div>

Between 1965 and 1975, the school library media field
underwent a dramatic change in order to meet new demands from
the field of education. These new demands have been reiter-
ated by countless writers. Moore (1976) listed the most
important demands: (1) the need of educators to master the

new and proliferating technologies in education, and (2) the
need to facilitate the individualization of instruction to
students. During this period of transition, leaders in the
elementary and secondary school sector of the library media
field stepped forth to provide important guidance to practic-
ing school media personnel. One of the significant efforts
in leadership was the School Library Manpower Project (SLMP).

Funded by the Knapp Foundation of North Carolina, and
sponsored by the American Association of School Librarians,
the School Library Manpower Project was conducted to
provide the following:

1. A reevaluation of the quantitative and qualitative
   recruitment practices in the school library media
   field;

2. A restatement of the competencies necessary for
   media specialists to perform within the ever-
   changing functional patterns in school media centers;

3. Concrete evidence of the kinds of educational pro-
   grams required for school media personnel to attain
   these competencies (SLMP, 1973, p. vii).

The Project identified seven areas of competencies
needed by school media personnel. These seven areas were:
Human Behavior, Learning and Learning Environments, Planning
and Evaluation, Media, Management, Research, and Profession-
alism. Six experimental training programs were established
by the Project to provide opportunities to acquire the needed
competencies in the seven identified areas.

Programs were established at Arizona State University,

Auburn University, Mankato State College (Minnesota),

Millersville State College (Pennsylvania), University of

Denver, and the University of Michigan.

The final phase of the Project was devoted to evaluating

the effectiveness of the curricula developed for the six ex-

perimental programs. Data needed for the evaluation were

collected from four groups of participants: graduates of the

training programs, supervisors (school principals) of the

program graduates, students who were still in the programs,

and experimental program directors and their staffs.

The Behavioral Requirements Analysis Checklist (BRAC)

was developed as the main data collection instrument. BRAC

consisted of 702 task statements which were grouped under the

seven areas of competencies. The statements represented

"primarily the required behavior of a school library media

specialist who functions as a generalist in a school library

media center" (SLMP, 1975, p. 15). Graduates were asked how

often they performed each task and how important the tasks

were to their overall job responsibilities. They were also

asked to indicate their competency in performing each task.

Findings of the study were published by the American Library

Association in 1975.

Responses to the BRAC revealed that (SLMP, 1975):

1. Sixth-year level graduates were the most involved
over all tasks.

2. Master level graduates were more involved in the tasks than were bachelor level graduates.

3. There was a general consensus among the graduates that the tasks were above average importance.

4. There was some involvement in all the tasks.

5. Master level graduates reported slightly higher capability in performing tasks than did bachelor level graduates.

In addition to the 103 graduates, the supervisors of these graduates (building principals) were asked to complete the questionnaire. Thirty-three of these returns were analyzed. Most principals, however, reported that unfamiliarity with the tasks, duties, and responsibilities of the school media specialist prevented completion of the questionnaire (SLMP, 1975, p. 32).

Twenty-five students who were currently enrolled in the experimental programs were also asked to complete the BRAC. However, these data were not analyzed and reported (SLMP, 1975, p. 32).

Finally, the directors and all key staff members in the six experimental programs completed a BRAC questionnaire. Data from these respondents were used to identify gaps and duplications in the programs (SLMP, 1975, p. 33).

Probably the most significant contribution of the Project to the field was its identification of the many tasks and functions of school media personnel (Chisholm and Ely, 1976). Following the publications of BRAC and other documents, the Project became a benchmark in guiding the work and attention

of those in school media centers. Few writers, who addressed
the subject of school media centers or school media special-
ists, failed to reiterate the impact of the Project on the
field.

Further testimony to this impact was evidenced in the
number of writers and researchers who used the BRAC in sub-
sequent studies and publications. The American Association
of School Librarians incorporated competencies listed in BRAC
into a certification model for school media personnel. The
model was developed and published to guide state programs in
certifying school media specialists (AASL, 1976). Chisholm
and Ely (1976) used task statements from BRAC to form a
competency-based model for media professionals. In the model,
task statements were subsumed into competencies, and compe-
tencies were collapsed into 10 broad functions. Chisholm and
Ely believed that the model should help media professionals
in charting a map for professional development.

Bell (1977) selected task statements from BRAC to deter-
mine the work goals of experienced and inexperienced school
media specialists in the Birmingham, Alabama Public Schools.
Discrepancies between the goals of the two groups were used
to make recommendations for continuing education programs for
media personnel.

The study by Clark (1979), referred to earlier in this
paper, used 57 task statements from BRAC to (1) determine
importance of the tasks to the career objectives of media

specialists in Kansas, (2) determine the respondents' capability in performing the tasks, and (3) determine where the tasks should be learned. Clark found that all 57 tasks were considered important. Forty-five of the tasks were judged as essential, while 12 were judged important but secondary. Most of the media specialists felt highly capable of performing 34 of the 57 tasks, and needing occasional consultation in performing 22 of the tasks.

This section has reviewed the numerous uses of the Behavioral Requirements Analysis Checklist. The literature suggests it is very flexible as a data collection instrument; it has been used to accomplish a number of purposes, such as a basis for development of continuing education programs for school media specialists, to determine career goals of those working in school media centers, and to validate the effectiveness of training curricula. In addition, the School Library Manpower Project reported evidence that graduates of master's degree programs were more active in media center functions than were graduates from bachelor degree programs. This evidence led to the development of the hypothesis that a positive relationship existed between the perceptions of media specialists of their job functions and the level and type of training the media specialists had received.

Importance of the Human Behavior Function
in School Media Centers

The institutional life of a school media specialist is composed of social and professional interactions with students, teachers, administrators, colleagues, parents, and other community groups and individuals. The professional success or failure of the media specialist can depend on the nature of these interactions, for it is through the human behavior function that meanings between the media specialist and others who interface with the media program are conveyed.

The human behavior function takes on a special significance when one considers the media center as the one place in the school which belongs to everyone (Peterson, 1979). The classroom is the special domain of the teacher along with the group that is scheduled there for a particular length of time. The principal's office and the counselor's office are often closed to those who do not come with an official problem. The media center is different. Its doors are open to everyone in the school at all times. No one needs a special reason to enter.

The media specialist does not need any extraordinary amount of skill to organize and regulate the material resources in the center, but special skills are required to work effectively with people. Directors of the School Library Manpower Project recognized the importance of this skill when human behavior was included as the first of seven

competency areas in the <u>Behavioral Requirements Analysis Checklist</u> (SLMP, 1973).

As defined in the Checklist (p. 3), the function required three basic things of professional school media personnel: (1) a commitment to serving others, (2) sensitivity to the social processes which occur in the media center, and (3) the ability and willingness to apply special knowledge and skills. These three requirements will be explored in subsequent sections of this discussion.

Service orientation of school media specialists

Fitzgibbons (1976, 1980) advocated a strong commitment to service on the part of school media professionals. The service orientation of the school library media field was defined by Fitzgibbons (1980) to be "a human quality that affects interrelationships to clients, to colleagues, and to society" (p. 105). According to Fitzgibbons, the service orientation concept should serve as the ethos of the library media profession.

Fitzgibbons (1976) had sought to measure and refine the service orientation concept in a research study. The study involved 203 subjects who were library school students, practicing media specialists, and leaders of the American Library Association. Subjects were asked about their perceptions of the service orientation concept as a work value. Leaders and practitioners were found to favor the altruistic meaning

of the concept (contributing to society) more so than did
the students. However, all three groups had a stronger
preference for the general definition of the concept (being
helpful to others). Fitzgibbons concluded that a positive
perception of service was held by those leading, entering,
and working in the library media field.

Epstein (1980), using a similar general definition of
service as did Fitzgibbons, provided a useful service-oriented
model from the field of social work. The model depicts a
linear progression from the initial contact stage to a ter-
mination or evaluation stage for providing effective service
to a client. There are five steps in the model.

1. The initial contact stage represents a vital step
   in the model for the nature of all subsequent in-
   teraction rests on the quality of this step.

2. The problem identification stage draws out the
   client's problem in the client's own words, and re-
   lates the problem to the mission of the service
   program.

3. The contract formation stage specifies goals and
   determines tasks of both the client and the prac-
   titioner.

4. The problem solving stage applies skills, knowledge,
   and resources to the targeted problem.

5. The evaluation stage represents the most difficult
   step in the model because, in human interaction,
   goals are generally approximately rather than com-
   pletely achieved.

The Epstein model is, in essence, a systems approach
to rendering service to a client of any organization. Its
implementation in a school media center would realize the

suggestion of Fitzgibbons (1980):

> The service orientation can be based on reason,
> logic, and expert knowledge, rather than an emo-
> tional response in wanting to help and serve people
> (p. 106).

Need for social interaction skills

Media specialists often fail to apply social interac-
tion skills in the commission of their duties. Allen and
Conroy (1971) suggested that media specialists have not been
very receptive to the advances made in the behavioral sci-
ences. Such "selectivity" has worked to the detriment of the
professional growth of media specialists, the institutions
they serve, and the patrons of the media center.

Social interaction was defined as: "A generic term for
the exchange of meanings between people.... All the various
ways in which people can and do express themselves in face-
to-face meetings" (Allen and Conroy, 1971, p. 78). Using
the writings of Argyris and others in the field of manage-
ment, Allen and Conroy recommended the laboratory approach
to developing the needed skills for effective interaction
with media center patrons. The laboratory approach, accord-
ing to the writers, had been found to be superior to the
classroom or lecture method for learning such skills, be-
cause model human relations could be simulated under the
direction of knowledgeable experts.

In the small institutional settings in which most school

media specialists work, such an approach does not seem practical. Instead, many researchers, such as Larsen (1971), Cantor (1975), and Fitzgibbons (1976), recommended the development of these skills in formal classes, in-service workshops, and on the job with the help of principal and faculty.

Importance of communication

Communication is a natural component of human behavior. Therefore, the media specialist must seek to apply a sound theory of communication in working with those who interface with the media program. The need for effective communication skills by media specialists has been recognized and articulated by Van Dreser (1971), Larsen (1971), Daniel (1974), Cantor (1975), McGlade (1975), and Rosenberg (1978a).

Van Dreser (1971) recommended that a significant portion of the curricula for preparing school media specialists be devoted to communication theory. Larsen (1971) and McGlade (1975) concluded that both school media specialists and principals could benefit from a basic course in the philosophy of communication. Cantor (1975) believed that improved communication between school media specialists and library media educators would result in a better defined role of the media specialist in the schools.

The only study found by this writer which focused primarily on the communication patterns of school media special-

ists was done by Daniel (1974). In that study, communication patterns of the media specialist were related to the extent of integration of the media program into the central functioning of the school. Using an isolation-integration continuum theory, Daniel found that media programs which were highly integrated with the total school program were managed by media specialists who were more likely to initiate contacts with teachers, who made such contacts more frequently, and who felt that such contacts were important. In the low integration index schools, media specialists felt that contacts with subordinates were more important. Also, in the low integration schools, the media specialist was more likely to discuss other school personnel with subordinates.

Other interesting findings of the Daniel study were that media specialists with highly integrated programs were significantly more humble, accommodating, and submissive, and tended toward a passive, nonaggressive and subdued approach to life. On the other hand, media specialists with isolated programs were significantly more independent, radical, and projective.

These findings are congruent with the ideas and observations of Rosenberg (1978a), Peterson (1979), and Conant (1980). These writers felt that the most effective school media professional was nonthreatening in relationships with

students, teachers, and administrators. Conant noted: "The
force of personality is essential.... A too aggressive per-
sonality could be as disastrous as a weak one" (p. 148).

The article by Rosenberg (1978a) listed six summary
statements on the media specialist-client communication
process:

1. Media specialists must understand the differences
   in roles which exist between them and their clients.

2. Media specialists who develop ways to extract ideas
   from their clients, and use them, will find more
   effective and congenial communication taking place.

3. Media specialists should get to know their clients,
   particularly teachers, before entering into confer-
   ences with them. This is important in order to
   display behavior which is consistent with the de-
   sires and expectations of the client.

4. Media specialists should attempt to structure the
   content of the conferences so as to provide for
   appropriate and desired responses from the client.
   Also, the media specialist must give careful con-
   sideration to how to present ideas to clients.

5. Media specialists should devise an effective plan
   for gaining feedback about the media specialist's
   communication skills from their clients.

6. Media specialists should provide ample opportunities
   for clients to express their ideas and to lead the
   discussions.

Rosenberg believed that Flanders Interaction Analysis
Theory provided an effective base for a communication model
to be used during interpersonal communication between prac-
titioner and client. The model described two specific types
of behavior during such interaction. These were direct be-
havior and indirect behavior.

Direct behavior is characterized by incidences of giving opinions, suggesting ideas, and (or) criticizing the teacher. Such behavior by the media specialist is of a controlling nature, tends to prevent the teacher from participating in the conference, and makes the teacher an object of evaluation. Indirect behavior is characterized by asking questions, accepting ideas, suggestions, or questions from the teacher, and/or praising and encouraging the teacher. This type of behavior by the media specialist indicates concern and invites participation by the teacher in the conference.

Rosenberg (1978a) suggested that media specialists employ a low direct-high indirect strategy for the most effective communication when working with teachers (p. 49).

Need for empathy

A final ingredient in effective human behavior in a media center is empathy. Peterson (1979) expressed the notion that effective human behavior in the media center was based on a deep sense of caring about people on the part of the media specialist. Caring is characterized by a cooperative spirit and a "we" feeling in the media center. Peterson felt that the extent of caring about the students who use the center as portrayed by the center personnel was directly related to the students' willingness to take risks when using the center as a place for learning (p. 5).

Empathy was defined by Greif and Hogan (1973) as, "a sensitivity to the needs and values of others" (p. 280). These writers reviewed several studies which supported the theory that empathy is an important aspect of interpersonal behavior. The studies concluded that the empathic person was primarily able to take the role of others, thereby facilitating the development of interpersonal relationships. Evidence was also found that empathic persons tended to be flexible in their dealings with people (p. 284). These findings can be directly related to the observations of Daniel (1974), Rosenberg (1978a), and Peterson (1979). Media specialists who function effectively in the media center are those who are viewed as nonthreatening and who demonstrate a high regard for the feelings and problems of their clients.

The literature suggested that the human behavior function plays a significant role in the success or failure of media personnel in the schools. The media center is part of a scenerio in which media specialist, teachers, and students seek to exchange meanings in daily encounters. This exchange is greatly enhanced and facilitated when the media specialist applies knowledge and skills of effective communication and human relations. Little has been done in the library media field to investigate and document the influence of the school setting on the media specialist's efforts in this exchange. Work in this direction should be greatly increased.

Definition and Goal of Instructional Development

Instructional development was conceptualized in the Domain of Instructional Technology (Silber, 1970; Wallington et al., 1971) as a unit of six functions. These functions, each with its own goal, were: (1) Research-Theory, (2) Design, (3) Production, (4) Evaluation, (5) Support-Supply, and (6) Utilization. The function, in its collective sense, was defined as: "Functions which have as their goals the application of ISC's (Instructional System Components) to solve instructional problems" (Wallington et al., 1971, p. 298).

The School Library Manpower Project (1973) provided a very comprehensive definition of instructional development under the referent, "Learning and Learning Environments" (p. 6). The definition, which is the one used in the present paper, stated:

> Learning and learning environment consist of the knowledge, abilities and attitudes associated with curriculum; learning theories as they relate to human growth and behavior; and strategies for teaching and learning within the life-space of the individual, recognizing the home and the total community as contributing elements in his education: (p. 6).

Six subfunctions were included to guide in the translation of the definition into practice. These subfunctions were: (p. 6-9):

> 1. To apply the principles of learning and learning-theory to assist the learner in his pursuit of individual and group search and inquiry.

2. To participate, as a member of the educational team, in the design and construction of the curriculum for the educational program.

3. To provide leadership for the determination of educational objectives for the media program as an integral part of the educational program of the school.

4. To plan learning activities and opportunities to enable each student to assume an increasing amount of responsibility for planning, undertaking, and assessing his own learning.

5. To identify student performance capabilities for particular types of learning activities and tasks.

6. To participate in a continuous program of curriculum assessment and evaluation based on the stated curriculum objectives.

Individual writers (Peterson, 1975; Davies, 1975; Rosenberg, 1978b) have also offered definitions and goals of instructional development. Peterson (1975) defined the function as:

> ...a process, the focusing of a team of specialists (subject matter, learning, media, management, production, evaluation, etc.) on the task of analyzing the components (audience, task, environments, etc.) of a learning system in order to meet specific objectives through the selection, production, sequencing, engineering, and testing of that which may make up a learning environment (p. 34).

According to Peterson, the instructional development process should follow an "orderly, visible, procedural path" (p. 42). This orderly, visible, procedural path is represented in the following model.

```
Instructional          Curriculum          Course
Decisions        ---→   Planning      ---→  Development


                  Media
      ---→        Preparation  ---→  Instruction
                  and
                  Procurement
```

Davies (1975) noted the emphasis on change which is inherent in the instructional development process by observing that the ultimate goal of the function is improved performance based either on the use of a better instructional product or a better technique as a result of change.

Rosenberg (1978b) distinguished curriculum development from instructional development. Rosenberg offered the following justifications for making the distinction:

> Differentiating curriculum development from instructional development helps to put educational program planning into proper perspective. Relationships between curriculum and instructional components of the program become easier to identify, and root causes of problems become more apparent when more components can be designated as either clear curriculum concerns or clear instructional concerns.
>   It is also important to be able to evaluate the curriculum in light of the criteria on which it was developed without instructional concerns clouding the issue. Likewise, a distinct curriculum can remain a guiding criterion on which instruction is redesigned to increase learning (p. 12).

Rosenberg went on to define instructional development simply as "the process of creating the most effective means to arrive at curricular ends" (Rosenberg, 1978b, p. 12).

Specific Activities of the Instructional
Development Function

Rosenberg (1978b) believed that the school media specialist should play a major role in the identification, selection, and evaluation of learning resources to be used in instructional development (ID). Correct utilization of these materials in the appropriate activities was also the responsibility of the media specialist. To facilitate the ID function, Rosenberg offered six suggestions (p. 13):

1. Seek out teachers who are interested in ID.

2. Find out what the teachers need.

3. Sit in on curriculum committees.

4. Communicate the media program to faculty and administrator.

5. Provide inservice activities for teachers.

6. Make sure that the principal and district officers are aware of the school media specialist's competencies in ID.

Wood (1976) used a systems approach to involve school media specialists in the ID function. Three stages were outlined as belonging to the involvement process. During the planning stage, the media specialist should assist the development team in setting instructional objectives. Involvement at this stage should help to insure that media will be integrated into the instructional unit rather than simply fill a supplementary role.

At the implementation stage, the media specialist maintains personal contacts with individual teachers and students. The media specialist supplies needed resources and bibliographies. Other community resources are also tapped to contribute to the implementation stage.

The evaluation stage is characterized by analyzing feedback gained through field-testing, observation, interaction with students, and discussion with teachers. Using data gained from these activities, as well as from performance tests, the media specialist and other members of the development team determine if the instructional objectives have or have not been met. Failure to meet the objectives requires that instructional alternatives be identified. Wood also suggested that school media specialists involve themselves in producing learning activity packages, or helping students and teachers produce such packages.

According to Davies (1979, p. 67), the media specialist does the following things as an instructional developer at the school level:

1. Determines the contribution the library media center is to make to the overall teaching plan.

2. Determines specific teaching objectives to be accomplished through the use of library media center resources and guidance.

3. Identifies basic concepts and skills to be introduced, reinforced, or extended.

4. Structures learning guides; reading, viewing, listening checklists; summary forms; reaction charts; critical evaluation score cards, etc.

5. Determines appropriateness of assignments and the availability of suitable materials: filmstrips, motion pictures, slides, videotapes, transparencies, art prints, study prints, graphics, maps, charts, recordings, realia, resource kits, etc.

6. Sets target dates for each phase of the library media center program.

7. Designs specific teaching strategies requiring library media center support.

8. Designs specific learning experiences and activities requiring library resources.

9. Designs specific unit and support activities.

10. Designs strategies for meeting student needs, interests, goals, abilities, progress rate, concerns, and potential.

11. Identifies specific media uniquely appropriate for each of the teaching and learning designs.

12. Designs appropriate culminating teaching and learning activities.

13. Designs appropriate evaluating activities to determine the effectiveness of the library media support program.

Evidence of School Media Specialist Involvement
in the Instructional Development Function

Anderson (1970) studied the roles of high school media specialists in Oregon and found that both principals and media specialists agreed that the role of instructional developer was appropriate for media specialists at the school level.

A study by Jetter (1972) showed experts in the library media field agreeing that the school media specialist of the future would function primarily as an instructional development specialist.

In 1975, conductors of the study by the School Library Manpower Project reported that 53.50% of graduates from bachelor-level media training programs showed involvement in the instructional development function. Over 60% of the graduates from master's degree-level programs reported similar involvement.

School library media specialists in a study by Cantor (1975) reported participation in curriculum development and revision, assisting curriculum committees in the selection of appropriate materials for resource units and curriculum guides, and in working with teachers in designing innovations in instruction.

Loerstcher and Land (1975) found that principals in elementary schools in Indiana tended to leave the instructional planning to media center staffs and teachers. Predictably, the study also revealed that full-time media specialists were more involved in instructional development activities than were part-time professionals.

Reluctance of School Media Specialists to Accept
Instructional Development Function

Much of the literature dealing with instructional de-
velopment at the school level is concerned with the reluctance
of media specialists to participate in this function. Gilman
(1970), in an article opposing the media center concept, ques-
tioned the ability or interest of those from library science
programs to function as instructional developers. Gilman
concluded that the media center concept as recommended by the
literature and leaders in the field would take 50 years to
implement, if, in fact, it could ever be implemented.

In a study of media services to teachers in senior high
schools in Indiana, Loertscher (1973) found that most school
media specialists had yet to assume a partnership with
teachers in improving the instructional program in the schools.

Two years later, Brunelle (1975) suggested that ignorance
of learning theories and the learning process prevented many
school media specialists, particularly librarians, from tak-
ing part in instructional planning. It was further observed
that librarians were particularly handicapped when individu-
ally designed learning programs and materials were needed.

Stroud (1976) evaluated the extent of involvement of
school media specialists in instructional planning and cur-
riculum development in middle and junior high schools in
Indiana. Using the Purdue Self-Evaluation System (PSES) for

School Media Centers, Stroud discovered that only about one-third of the media specialists were active in instructional planning.

As late as 1979, research findings indicated that many school librarians were still reluctant to participate in curriculum development (Mugnier, 1979). Mugnier reported,

> Many entrenched school librarians were found to be short on curriculum development skills and resistant to accepting more or new responsibilities (p. 21).

Secondary school principals in Iowa were found desiring more involvement of media specialists in instructional development activities (Burnell, 1979). Burnell recommended that secondary school media specialists in Iowa should: (1) participate more as members of the educational team, and (2) spend more time analyzing learner characteristics.

<div align="center">

Factors Affecting Involvement in
Instructional Development

</div>

A few researchers in the literature have attempted to isolate and explain factors which influence participation of media specialists in the instructional development function.

Schulzetenberge (1970) related interests and background variables of school media specialists to success in working with teachers in instructional and curriculum development. Type of materials program (print or nonprint), undergraduate major, and working preference were found to be the best predictors of success in working with teachers as instructional

developers in the schools.

An investigation by Hellene (1973) showed that principal behavior appeared to have an effect on the school media specialist's involvement in classroom activities and curriculum planning, as well as on teacher use of media in individualized instruction. Data in the study were obtained from one-third of the senior high schools, one-fifth of the elementary schools, and all of the junior high schools in the state of Washington. Principals responded to three separate questionnaires in which they indicated extent of behaviors, importance of behaviors to the school as a whole, and importance of the behaviors to the school's media program. When principal ratings on the questionnaires were compared to the development ratings of the media center, congruency was found between high principal behavior ratings and high center development ratings. In turn, principal behavior was affected by grade level of the school, location and size of school, available funds, autonomy, and community policies.

Kerr (1977) explained the reluctance of many school specialists to take part in instructional development activities as a function of the media specialist's role-taking ability (exchanging roles with the teacher), and as a function of teacher acceptance of such a role for the media specialist. Acceptance of the media specialist was felt to be directly related to the teacher's commitment to autonomy. Teachers,

noted Kerr (p. 245), think of themselves as both autonomous

and omnicompetent. Lortie, in 1975, had said of teacher

autonomy:

> Teachers attach great meaning to the boundaries which
> separate their classrooms from the rest of the school....
> Teachers deprecate the transactions which cut across
> those boundaries. Walls are perceived as beneficial;
> they protect and enhance the course of instruction. All
> but teacher and students are outsiders. That definition
> conveys an implicit belief that, on site, other adults
> have potential for hinderance but not for help (cited
> in Kerr, 1977, p. 245).

Teacher acceptance of the media specialist as an instruc-

tional developer was also theorized to be a function of the

social exchange theory in practice. The social exchange

theory, in its classic sense, maintained that human beings

seek to give up as few resources as possible in exchange for

the greatest amount of the best possible resources in any

social interaction (Kerr, 1977, p. 246). Therefore, many

teachers are reluctant to accept advice or other help from

media specialists when planning instruction, because such

help or advice is viewed by the teacher as being "too

expensive".

Using the social exchange theory as a framework, Kerr

studied the acceptance by administrators, teachers, and

school media specialists of the instructional developer role

for media professionals in the schools. The three groups of

subjects were selected from elementary, junior high, and

senior high schools in Washington state.

At the senior high school level, role-taking ability of

the media specialist showed positive correlation with approval of an ID role for the media specialist. Among teachers, this correlation was .34 (p < .01), and for media specialists themselves, the correlation was .42 (p < .01). Findings for administrators were not reported.

When Kerr (1977) related approval of an ID role for media specialists to background variables of the subjects, positive correlations were found among teachers for length of service in education, and length of service in present position, .40 (p < .01), and .34 (p < .05), respectively. Among media specialists, positive correlations were found for income, professional affiliation, and size of school, but these correlations were not significant.

Kerr concluded in the study that empathic media specialists more readily accept a role as an instructional developer, and that teachers would prefer to work with such practitioners, because the relationship would appear less "expensive" (p. 263).

Davies (1975) had postulated earlier that the impasse between teachers and media specialists over the instructional developer role could be penetrated by clarifying the expectations of both parties during the ID process. A product-process relationship (teachers usually expect a product from the relationship, while media specialists usually prefer a process in the relationship) was recommended as the best

compromise in solving the problem when teachers tended to reject the media specialist as an instructional developer.

Turner and Martin (1978) related environmental and personal factors associated with media specialists to the extent of involvement in instructional development by school media personnel. Ninety graduates of the University of Alabama who were working in K-12 media centers were used in the study. Criterion factors studied were: age, sex, media epxerience, number of years in present assignment, classroom experience, recency of course work, and grades served by the school. Chi-square tests of independence and stepwise multiple regression were used to analyze the data. Conclusions in the study were:

1. There was limited involvement in instructional development by most of the media specialists.

2. School size and teaching experience were related to the amount of involvement.

3. Media specialists who read current professional literature, had adequate production equipment, and who had training in library science as well as psychology and research were most involved.

This portion of the literature review has produced four points that need to be summarized.

1. There is a need for school media specialists to apply the skills of interpersonal behavior and communication in carrying out their duties. These skills are particularly important in the instructional development process, for it is through instructional development that the media specialist and the media program directly impact on the school's instructional program.

2. Some factors which emanate from the school setting have been found to have an influence on the media specialist's involvement in instructional development. Kerr (1977) and Turner and Martin (1978) found evidence that media specialists in large schools tended to be more involved in instructional development than did media specialists in small schools. These findings led to the hypothesis that size of school district and the functions of media specialists were positively correlated.

3. Turner and Martin (1978) also found evidence that media specialists with many years in their present building assignments tended to be more involved in instructional development than were media specialists with few years in their buildings. It was therefore hypothesized that length of years in present assignment was positively related to media specialist involvement in a variety of job activities.

4. At least one study, Hellene (1973) suggested that media specialists in well-developed centers tended to engage in instructional development activities more often than did those in less-developed centers. Therefore, it is a hypothesis of this study that center development, as measured by the number of standards met, and the functions of media specialists are positively related.

Importance of Planning and Evaluating the School Media Program

The joint statement by American Association of School Librarians and Association for Educational Communications and Technology (1975) suggested that school media specialists must clearly understand the mission of the media program before any planning or evaluation is attempted. Baughman (1973) had stressed the importance of such a baseline on which to act:

> Understanding, in general, precedes improving since one must know what to improve before he can improve, and this should create a desire to conceptualize the basic problematic situation entailed in the school media program (p. 276).

Liesner (1973) and Evans (1976) indicated that the antithesis of planning was random movement which could result in a dysfunctional nature in all activities of the

media program. Equally as important, random movement often causes haphazard, inconsistent, and ineffective utilization of valuable time and other resources. Ultimately, planning reduces uncertainty and provides the planner with a certain degree of control over the future (Goldberg, 1976; Evans, 1976).

Definition and Principles of Media Program Planning and Evaluation

Evans (1976) defined planning, in a general sense, as,

> ...the selecting and relating of facts to a number of assumptions regarding the future, in an effort to visualize and formulate a proposal outlining the activities required to achieve a desired result (p. 85).

Evans proceeded to provide five general aspects of planning:

1. Planning includes personal and/or organizational identification. A plan determines what is to be implemented, who is to implement it, and when it is to be implemented.

2. Planning links the past and the present to the future. Armed with facts and knowledge about the past and present, the planner may be able to predict to some degree, what will happen in a like situation in the future.

3. Planning is an intellectual activity. The planner must be able to visualize patterns of activities, deal with a number of variables, and must be able to tie these together into workable procedures.

4. Planning is concerned with the future. It is an attempt to anticipate difficulties and contingencies and to provide a method of control.

5. Planning is a continuous activity. Plans should be tentative and subject to revision as new facts are known and needs reevaluated.

Definitions and principles of planning specific to school media programs have been provided by SLMP (1973) and AASL/AECT (1975). According to SLMP:

Planning is the design and methods for achieving the goals of the school library media program involving the identification, interpretation, development, implementation and evaluation of all the inherent components of the program. It incorporates assessment, analysis, synthesis, evaluation and reconsiderations for program development upon unique educational goals and objectives of the district and school (p. 10).

Six subfunctions were outlined by SLMP (1973) as requirements for fulfilling the broader function. The subfunctions required that the school media specialist:

1. Determine the goals, functions, and components of the media program to support the educational objectives of the total school program.

2. Assess the current status of the media program to plan for future development of the media program.

3. Analyze the assessment findings to plan for future development of the media program.

4. Identify and implement a sequence of goals and methods for the short and long range development of the media program.

5. Develop and implement a continuous evaluation plan to identify the operational strengths and weaknesses of the media program.

6. Design, develop and write proposals for the acquisition of local, state and federal funds to support and extend the media program (p. 10-12).

Similarly, the joint statement by AASL and AECT (1975) assessed the planning and evaluation function of school media specialists in terms of seven guiding principles which were stated as follows (p. 37):

1. The media program reflects, supports, and also helps to determine the goals and objectives of the educational program of which it is an integral part.

2. Planning for the media program is based on users' needs and interests.

3. Planning for the media program sets priorities within its delineated program objectives.

4. Decisions leading to ways to respond to identified needs are based on systematic analysis of alternatives, constraints, and other variables.

5. Planning is a cooperative process involving media program administrators, media staffs, school administrators, teachers, students, and community members as appropriate.

6. Planning is continuous and iterative and is the means through which program elements are selected, implemented, and evaluated in relation to program objectives, which are being continuously reviewed.

7. The planning process guides all aspects and stages of media program development from formulation of goals through evaluation of the effectiveness of specific program components and operations.

The above definitions and principles indicate that planning and evaluation are not mutually exclusive activities. Planning depends on evaluation, and evaluation depends on planning. Therefore, a systems approach to the planning and evaluation of the school media program has been deemed the most appropriate.

Models for Planning and Evaluating
School Media Programs

Liesner (1973) provided a nine-step process model for
planning and evaluating school media programs. The model
was an output of a research project jointly funded and spon-
sored by the Maryland State Department of Education and the
School of Library and Information Sciences at the University
of Maryland (p. 279). The project was conducted to answer
five important questions concerning school media program de-
velopment. These questions were (p. 280):

1. What specifically is a media program in client terms?

2. Realizing that resources are always limited, what
   services are most important or what mix of services
   is optimal for a given set of local conditions?

3. Who determines what is most important for a given set
   of conditions and how is the determination made?

4. What operations and resources are required to provide
   a given mix of services? What are the costs and
   what is feasible?

5. How can clients be involved in the planning process
   in order to increase understanding as well as use of
   the services provided?

At each step in the process model, Liesner detailed tech-
niques and helpful discussions for carrying out the step in
focus. For example, in Step 7 (informing clients of preferred
services found to be feasible), a group presentation about the
media program was suggested. The presentation would provide
a clear picture of what clients could and could not expect
from the program due to resource limitations and other con-

straints. This was also suggested as an effective means to sensitize the administration to specific service needs which have been expressed, and to the fact that such needs are the result of meager resources rather than disinterest or unwillingness on the part of the school media specialist.

The group presentation could also promote the attitude of media programs as a joint endeavor of mutual concern and benefit to all the parties involved (Liesner, 1973, p. 286).

Liesner evaluated the planning process model by stating that its approach to planning could be threatening to some media specialists because it stresses a good deal of user input:

> When clients participate in deciding program offerings and clearly understand what they have a right to expect, they are also in a better position to judge whether what was promised was actually delivered (Liesner, 1973, p. 286).

Implementation of the model in program planning was noted to require a considerable portion of the school media specialist's time, particularly the data collection activities. To help offset this restraint, the media specialist or "mediatrician" was urged to seek assistance from a higher level media service agency.

Goldberg (1976) conceptualized a model to serve as a general guide for the development and implementation of library media program services. A major difference between Goldberg's model and models containing the traditional sequence of procedures--(1) establish objectives, (2) design a program which

will achieve the objectives, (3) implement the program, and (4) evaluate the performance--was in the conception of "objectives", and in the appropriate use of evaluation as a planning tool (Goldberg, 1976, p. 77). Emphasis in the model, Planning, Implementation and Evaluation System (PIES), was placed on the distinction between "goals" and "objectives":

> Goals are statements of desired intent; they are directional and involve basic value assumptions. Objectives are statements of anticipated achievement and these can be measured. An error in starting program development with objectives is that goals and the values therein are often not articulated.... If what is being measured is badly conceived, the objective may be rejected as infeasible or otherwise undesirable, and the goals and the values which underlie them may also be rejected (p. 78).

Further, the PIES model regarded evaluation as an ongoing activity, and as an inextricably related element to planning and implementation. While it was inextricably related, evaluation was, at the same time, separate from the other discrete steps in the model.

In assessing the value of the PIES model to library media program development, Goldberg (1976) believed that the model:

1. Presented an open system in which step could be used as an entry point for environmental input.

2. Forced the model user to ask three important questions: What are we doing? How well are we doing it? Could we do it any better?

3. Individualized program development to conform to unique situations.

The antecedent of Goldberg's PIES model was the Context, Input, Process, Product (CIPP) model developed by Stufflebeam

and others at Ohio State University Evaluation Center (Goldberg, 1976, p. 8). The CIPP model was designed primarily for school media programs which had been funded under Title I and Title II of the Elementary and Secondary Act of 1965. Its thrust was the evaluation of ongoing programs, and was used in an effort to improve school media programs, not to validate them (Goldberg, 1976, p. 51).

The CIPP model consisted not of steps in program evaluation, but rather of four types of evaluation. These were (Goldberg, 1976, p. 51-52):

1. Context evaluation provided a rationale for determining objectives. In this type of evaluation, the preferred environment and needs of the user were clearly identified.

2. Input evaluation provided the necessary information for making decisions as to the most efficient ways to use resources for meeting the goals of the program.

3. Process evaluation provided feedback to the evaluator about procedures involved in carrying out the program. Process evaluation "debugged" the system and provided records for future references.

4. Product evaluation interpreted the initiation, life, and final stages of the planned development and improvement of the program. Its ultimate goal was to decide if the program plan had succeeded or failed.

Goldberg observed that the primary weakness in the CIPP model was its emphasis on the collection of data with little attention to the analysis of the data. He stated:

Delineating and obtaining data are, indeed, critical elements for evaluation, but they are not _identical_ with evaluation. It is clear that in order to evaluate anything one must have data to analyze. The data are pre-

sumably obtained in response to some articulated need to get them, and the analysis of the data does provide information for decision-makers. But only the <u>analyses</u> of the data constitutes evaluation (p. 54).

The three planning and evaluation models discussed above, the process model, PIES and CIPP, were designed and developed to assist library media specialists in providing programs which are more sensitive to the needs of clients. The models stress the following desirable elements:

1. They are individualized in nature. Each can be fitted to unique situations. This is particularly important in a small school setting where staff and resources are severely limited.

2. They are simple and straightforward with logical steps, and employing terminology which is easily understood. Few school media specialists would have the time for lengthy interpretation of a planning and evaluation model before it could be implemented.

3. They are based on empirical research and testing. Liesner's process model was based on data from the Montgomery County (Maryland) Public Schools (Liesner, 1973, p. 279). Goldberg reviewed the literature in education, the health professions, and library science over a 15-year period to develop the PIES model. Testing and further development of the model were accomplished with graduate students in library science (Goldberg, 1976, p. 17). The CIPP model was used in a series of training programs for directors and staff of state library

agencies in Columbus (Ohio), Honolulu, Salt Lake City, Kansas City, and Washington, D.C. (Goldberg, 1976, p. 8).

4. The models employ a systems approach to media program planning and evaluation. Such an approach allows the school media specialist to view the media program in holistic terms and to assess its overall impact on the total school program.

5. The models were designed specifically, or were the outgrowth of models, for use in school media programs by school media specialists.

Common Sense Planning and Evaluation

Scientific and theoretical models used in planning and evaluating school media programs are often effective and feasible, but they sometimes fail to consider the educational experiences of students (Hannigan, 1976). Models, Hannigan believed, are primarily valuable as tools for assessing the accountability of the media program to the school as a public institution. In being accountable to students, the school media specialist must use common sense along with such models.

Hannigan suggested that the use of videotape in observing the daily encounters of students and teachers with the school media specialist and the media center could provide valuable data for determining strengths and weaknesses of the program. Analysis of the content of the tapes could lead to

meaningful dialogue between media specialist, students, and teachers.

Hannigan further suggested that simply talking with, and listening to students and teachers about their needs provided another common sense technique suited to evaluating the media program. Such exchanges could give important feedback to the media specialist on the effects of materials or special services.

The development and improvement of the media program are important responsibilities of the media specialist. Through the planning and evaluation function, the media specialist directs and controls the many components of media service to achieve the overall goals of the program. The literature revealed, however, a dearth of empirical findings relative to these important responsibilities. Much of what is available is concerned with the validation of models to be used by the media specialist in the planning and evaluation of programs at the school level. There remains much work to be done in determining the acceptance of these responsibilities by media professionals as they function within the limitations of their school settings.

Research Function in School Media Centers

Research was defined by the School Library Manpower

Project (1973) to be both a process and a product. The

definition was stated as follows (p. 48):

> Research as a process is searching, documenting, evaluating, and applying information. Research as a product is a body of recorded and documented knowledge. The process and product of research are integral parts of all aspects of the school library media program.

Seven subfunctions were listed as being necessary to fulfill

the research function. These were:

1. To apply the principles of research for the development and advancement of the media program.

2. To determine the need for conducting research activities to support the goals of the media program.

3. To design an identified research study for the development and advancement of the media program.

4. To gather data for identified research study related to the media program.

5. To assess and evaluate information gathered in specific research studies of the media program.

6. To apply research findings for the improvement of the media program.

7. To identify and locate research sources and products for users of the media program.

The American Association of School Librarians (AASL)

adapted the SLMP definition and the seven subfunctions in its

Certification Model for Professional School Media Personnel

(1976).

The Jobs in Instructional Media Study (JIMS) (Wallington

et al., 1971) listed three research activities for media

center personnel (p. 64):

1. Designs questionnaire to survey use of equipment and materials.

2. Circulates questionnaire to survey use of equipment and materials.

3. Compiles data from returned questionnaire to summarize information.

Rationale for the Research Function at the School Level

The important theme of the research function in school

media centers is the improvement and advancement of the media

program. The school media specialist contributes to the over-

all quality of the program when systematic problem-solving

methods are used to identify and correct flaws in the program.

Olson (1972) believed that research into the major areas of

media center service and the relationships which exist between

the areas could provide a basis for more rational decision-

making. The media specialist must implement changes and guide

the program's development with a knowledge of what is needed.

Much of this knowledge can only come from systematic study of

services and the benefit of these services to users.

Nature of Research Activities in School Media Centers

Chisholm and Ely (1976) discussed the research function

in school media centers as a "simple to complex continuum."

Using Good's, 1973, definition, the authors stated that re-
search was (p. 329):

> ...careful, critical, disciplined inquiry, varying in
> technique and method according to the nature and condi-
> tions of the problem identified, directed toward the
> clarification or resolution (or both) of a problem.

In discussing the simple end of the research continuum,

Chisholm and Ely (1976) chose not to emphasize the daily

question and answer activities, traditionally known as "refer-

ence" in most libraries, but rather to pose example questions

which required some measure of problem identification, litera-

ture searching, data gathering, data analysis and synthesis,

and determination of conclusions. It was stressed that either

simple or complex research begins with curiosity and questions.

For example, a teacher might pose the question: "Are multi-

media classroom presentations time and cost effective?" In

this case, a problem has been brought to the attention of the

media specialist by a user. On the other hand, the media

specialist might observe that frequent breakdowns of a par-

ticular piece of equipment limit its use and, therefore, its

contribution to the media program. In the former problem,

the question might be: "What does the literature say about

the effectiveness of multimedia presentations?" In the latter

case, the question might be: "Is breakage due to abuse or poor

construction, or is it a combination of both?" In order to

answer these questions, the media specialist must be able to

locate the information concerning the problem at hand through

the use of bibliographic tools and (or) computer data bases.
Once the information needed has been located, the media spe-
cialist must be able to interpret the findings in order to
ascertain whether or not the solution to the problem has been
found. Finally, the problem's solution must be disseminated
in a form satisfactory to the inquirer.

Evidence of Involvement of School Media Specialists in the Research Function

Although school media centers are often hampered by
limited staff, funds, and resources, some invovement in the
research function is vital if these centers are to adequately
meet the needs of users. However, the literature shows very
little has been done to assess the involvement of media
specialists in this function. This writer was able to find
only two research studies dealing specifically with the re-
search activities of school media specialists.

The School Library Manpower Project (1975) surveyed 74
graduates of media training programs who were working in
K-12 media centers. Sixteen of the graduates were from
bachelor-level training programs, and the other 58 were
products of masters-level programs. The survey found that
16.2% of the BA graduates performed some research tasks, while
28.4% of the MA graduates were engaged in research. Both
groups rated the research function as being of "average
importance" in relation to their other job functions. The

study suggests that level of training affected the degree
of involvement in research activities, but did not affect the
perceived importance of such activities.

In a study of the actual and ideal roles of school media
specialists as perceived by secondary school principals in
Iowa, Burnell (1979) found that principals desired more in-
volvement of media specialists in this subrole. The perceived
actual involvement in research was 2.31 (on a 0-5 scale),
while the perceived ideal involvement was 3.40. A t value
of the difference between the actual and ideal involvement
was 10.78, significant at the .05 confidence level (p. 121).
Burnell speculated that this difference could be due to weak
emphasis on research in library media training programs. The
study also revealed that principals who were most satisfied
with the involvement of school media specialists were employed
in urban schools, large schools, and who had been employed
as principals for more than 10 years.

Burnell recommended that school media specialists should
reassess their current activities in the research subrole and
prepare to provide more input with regard to this function.

In summarizing the literature on research activities
in school media centers, it is possible to define and isolate
these activities, and to rationalize their inclusion in a
well-rounded school program. However, this writer was able
to find only two studies which attempted to determine the

involvement of school media personnel in the research func-
tion. More important, there was a noticeable lack in the
literature of studies which isolated and explained influences
on the efforts of media specialists in this function at the
school level.

Professionalism

To be a professional in American society is somehow to
be special. A professional is thought to have special
knowledge, special skills, special resources, and spe-
cial responsibilities. A professional is the object of
special respect, special envy, and special demands
(Yarmolinsky, 1978, p. 159).

Goode (1966) posited that there were two main character-
istics of a profession. These were (1) prolonged specialized
training in a body of abstract knowledge, and (2) a collec-
tivity or service orientation. Synthesizing the sociology
literature, Fitzgibbons (1980) observed seven characteristics
common to a profession:

1. Theoretical and specialized knowledge as a cognitive
   base

2. A set of applied techniques for practice

3. Licensing

4. Work autonomy established by expertise

5. Colleague control

6. A professional association

7. A code of ethics

Edwards (1975) made similar observations about the character-istics of a profession. Among the six observations made by Edwards, there was one which was not included by the other writers. "The profession is a 'calling' for the individual member; his work becomes his life, and he is quite willing to accept full personal responsibility for his performance and professional growth" (Edwards, 1975, p. 152).

Is the library media field a true profession when com-pared to the above definitions? Is the media specialist a professional? Many have debated this issue for some time (Fitzgibbons, 1980). Goode (1966) raised these questions about the field of librarianship. His observations remain pertinent to the present library media field (Fitzgibbons, 1980). Goode observed that the failure of the public to see the librarian interacting with a scientific knowledge base often resulted in the librarian being viewed as a gatekeeper or custodian of the stockroom. This lack of recognition by concerned publics makes it difficult for the librarian to claim autonomy. Also, the client-professional relationship in the library media center influences the perceptions of those outside the field.

> Intellectually, the librarian must work within the client's limitations, instead of imposing his profes-sional categories, conceptions, and authority on the client. In other professions, too, the practitioner must understand the client's notion, but only enough to elicit adequate information and cooperation from him. The practitioner can solve the problem even if the cli-ent never understands what the professional is doing" (Goode, 1966, p. 42).

In libraries or media centers, the client sees the practitioner engaged mainly in activities which require attention to detail or knowledge of complex rules, but which do not require application of scientific or professional knowledge (Edwards, 1975).

The librarian or media specialist is particularly vulnerable to censorship, not by the professional associations, but by the public (Goode, 1966). The media specialist is open to inspection because the public views him/her as a public servant. The specialist can defend policies and acquisitions, but if these do not meet the standards of the public, public rejection can demand the media specialist's removal.

Edwards (1975) believed that the failure to separate the professional function from the management function in media centers has tended to place the media specialist into a bureaucratic hierarchy. Bundy and Wasserman (1968) had earlier voiced the same complaint. Such positioning imposes limits on the media specialist's autonomy. Edwards placed willingness to accept higher level management activities--goal setting, policy-making, planning, and evaluation--as within the specialization of the media specialist. However, the tendency of many to immerse themselves in day-to-day clerical tasks continues to perpetuate the nonprofessional view of the library media field. McGlade (1975) found that heads of school library media centers spent between 25% and 50% of

their working time on clerical duties. The principals and media specialists who took part in the study agreed that the media specialist should spend 10% or less working time on such duties.

Trends Affecting Professionalization of Library Media Field

Edwards (1975) and Walch and Brumbaugh (1975) recognized a number of recent trends which have helped in the development of the library media field as a true profession. Three trends were cited by Edwards. First, research has led to the development of relevant theory and knowledge. A substantive body of knowledge has emerged from research which aids the media specialist in communicating with clientele and in understanding the informational and educational needs of these clients.

Second, there is a trend in the library media field to increasingly embrace theories and techniques from the field of scientific management. The emphasis on efficiency, coupled with budgetary cuts, has compelled media centers and libraries to adopt methods which have been found to be more cost effective.

Third, the trend toward fewer professionals in a single library media center has forced competitiveness among the intellectual talents in the field. These conditions have allowed the field to pick and choose among the best and most committed persons to serve the profession.

Walch and Brumbaugh (1975) identified five forces which
have helped specifically in the development of school library
media field as a profession. These five forces were:

1. Research, particularly on the effects of audiovisual
    media on learners, and the characteristics of learn-
    ing and learning environments.

2. Leadership by such people as Skinner, Finn, Dale, and
    others in the field who advocated the unification of
    print and nonprint resources, such as Shores.

3. Professional associations and publications, mainly
    American Association of School Librarians (AASL)
    and the Association for Educational Communications
    and Technology (AECT), and the official organs of
    these two associations.

4. Federal aid to the schools, primarily the National
    Defense Education Act (NDEA) of 1958 and Title II
    of the Elementary and Secondary Education Act (ESEA)
    of 1965.

5. The developing technologies, particularly those which
    represented innovations in the teaching-learning
    process, such as computer assisted instruction, and
    television.

Fitzgibbons (1980) believed that when placed within the
framework of research findings on role perceptions, the present
library media field takes on a new image among the sociology
of professions. Fitzgibbons went on to say, however,

School library media personnel with the expertise and
status working within a clearly delineated role that is
understood and accepted by their constituencies are a
goal for the future. This new professional image will
not completely fit the traditional professional model
but could serve as an example of a service-oriented
professional model. The image is in the crystal-ball
stage today; only much effort and dedication on the part
of leaders in the field in directing a process of defini-
tion and clarification of goals, roles, and professional
practices will make this new professional image a reality
for the future (p. 107).

Responsibilities of School Media Specialists to
Professionalism

The School Library Manpower Project (1973) outlined six

subfunctions of school media specialists in the broader

function of professionalism. These six subfunctions were:

1. To exercise a leadership role in the educational
    and local communities.

2. To practice effective interpersonal relationships
    in the educational and local communities.

3. To advocate and support opportunities to improve
    the profession.

4. To engage in continuous study and self-evaluation
    for professional growth.

5. To encourage and practice a professional media
    philosophy which supports the principles and prac-
    tices of education.

6. To provide and protect the right to access for
    faculty and students.

The School Library Manpower Project further listed 31 specific

task statements under these six subfunctions. The 31 task

statements were sent to media specialists working in K-12

schools. Subjects were asked to indicate their level of

involvement in each of the tasks and to indicate the impor-

tance of each task to their overall job functions. Media

specialists in the study indicated from 50% to more than 90%

involvement levels in the tasks on a five-point scale where 4

indicated 100% involvement. Most subjects rated the profes-

sionalism function as "above average" importance in relation

to their other job functions (SLMP, 1975).

The American Association of School Librarians (AASL)

(1976) certification model for school media specialists listed

six competencies under the heading of "Leadership and Pro-

fessionalism". According to the model, the candidate for

certification should be able to:

1. Practice effective interpersonal relationships with-
    in the educational community.

2. Recognize the components of the community structure
    and utilize the special knowledge, abilities, and
    resources of people and institutions within the
    community.

3. Provide and protect within the existing legal frame-
    work the right of access for faculty and students.

4. Engage in self-evaluation to identify the areas of
    need for continuing education and professional
    growth.

5. Participate in district, county, regional, state,
    and national organizations.

6. Engage in research and publication activities.

Burnell (1979) randomly selected competencies 3, 5, and

6 of the AASL model for use in a study of the actual and ideal

involvement of school media specialists in eight professional

subroles. Burnell asked 200 secondary school principals in

Iowa for their perceptions of school media specialists'

actual performance in the eight subroles. They were then

asked to indicate the desired level of involvement of media

specialists in the subroles. The paired t-test was used to

compare means of the actual and ideal ratings. In the area

of leadership and professionalism, Burnell found that princi-

pals perceived a mean of 2.62 for actual performance of the school media specialists in this subrole, and a mean of 3.43 for ideal performance on a 0 to 5 rating scale. The resulting t value of 8.67 was significant at the .05 level (p. 147). Burnell concluded that principals in Iowa desired a greater level of involvement of media specialists in professional growth activities.

The research concerning involvement of school media specialists in the professionalism function is scanty. The two studies cited above do, however, indicate some concern in the field to empirically establish the importance of this function to media professionals working in the schools.

There has been a long-standing debate over the status of the library media field as a true profession, particularly when viewed at the elementary and secondary school level. The debate has prompted some writers in the field to cite a number of trends and forces which have helped to improve the professional image of those who serve in school media centers. In turn, school media professionals have been charged with the responsibility of the continued improvement of this image through programs of professional growth activities. The charge, however, has not been reinforced through a continuous and systematic study of the responsibilities of media specialists in these activities. Important questions pertaining to the influence of the school environment on the involvement

of the media specialist in professionalism remain.

External Cooperation in School Media Centers

External cooperation is defined in this study as the purposeful interaction between school media programs and those programs at the regional level when this interaction is initiated by the school media specialist. In this function, the school specialist is sensitized to the special benefits offered by the regional center, and works continually to secure these benefits for the good of the school center patrons. The ultimate goal of the external cooperation function is to provide the widest range of contemporary services and materials to students and teachers.

The purpose of the regional center and its relationship to the building level (school) program have been well outlined by the American Association of School Librarians (AASL) and the Association of Educational Communications and Technology (AECT) (1975). The joint statement by AASL and AECT said (p. 16):

> Regardless of its organizational pattern, the regional media program exists to provide services which school districts cannot provide for themselves or to strengthen school district programs by supplementing existing services or offering superior alternatives.

The statement went on to list seven responsibilities of regional programs (p. 16):

1. Providing advisory, consultative, and informational services

2. Technical processing

3. Building special collections and providing duplicate copies for high-use situations

4. Providing comprehensive or selective examination collections of instructional materials, purchased and/or obtained on loan for the use of their clientele

5. Producing educational radio and television programs

6. Serving as centers for computerized instruction, remote access distribution systems, mobile units, and the like

7. Carrying out staff development programs for media professionals and teachers.

Maxwell (1979, p. 187) compiled a more comprehensive list from the literature of the functions of regional media centers:

1. Cooperative acquisition, cataloging, and processing services

2. Cooperative purchasing of materials, supplies, and equipment

3. Evaluation and review of new materials

4. Provision of library/media expertise to curriculum planners

5. Design and production of curriculum materials

6. Production and distribution of television programming

7. Provision of a library of motion pictures, video-tapes, and other "high cost" media

8. Maintenance and repair of audiovisual equipment

9. Acting as a linking agency between schools and information/resources networks

10. Acting as a clearinghouse for community-based resources appropriate for use by schools

11. Provision of in-service workshops and credit classes in the use of media

12. Provision of offset printing services

13. Provision of a professional library collection and computer-based information services

14. Provision of administrative and instructional computer services

15. Provision of a demonstration collection of new materials and equipment.

The above lists of services and functions of regional media centers indicate that the possible benefits to school programs are enormous. The school media specialist who is wise enough to tap these special services would contribute significantly to the quality of the school program.

Need for Cooperation Between School and
Regional Media Programs

The literature suggests a need for school centers to take advantage of the many services of state, regional, and district level media programs (Bingham, 1979; Maxwell, 1979; Stephens, 1972; Guise, 1972; Pfister, 1970; Becker, 1965).

Bingham (1979) stressed the advocacy role of higher organizational level media programs in behalf of local schools. In this role, the higher level center fosters understanding between other educational professionals and library media

personnel. This is important because the lack of information and understanding generally results in "frail, tenuous, alienated relationships" (p. 193). The advocacy role of the regional center staff, particularly the director, extends to describing the services, activities, and needs of local school media programs at meetings, conferences, and conventions of administrators, counselors, teachers, and parent-teacher groups. Such exposure of local programs should result in more support for these programs.

Stephens (1972) and Maxwell (1979) observed that regional media center personnel were representative of the best trained and most experienced media professionals in most states. The expertise of these professionals places the regional center in a unique leadership position in the development of media service in the local school districts. Maxwell spoke of this leadership role (p. 189):

> Staff members of regional centers are often viewed by their users as specialists who possess expert knowledge and skills. As such, they must remain on the "cutting edge" of developments in the media library field and perform a major leadership role. This role requires a high level of formal preparation and a continuing personal program of journal reading, conference attendance, and other professional development activities.

Becker (1965) used a rating scale (1-Absent, 2-Poor, 3-Fair, 4-Good, or 5-Excellent) to rate regional media centers in Pennsylvania as to their practices in acquiring and distributing instructional materials. Analysis of the data revealed that, though there was communication between the

regional centers and the local schools in member districts, there remained a need for more input from the schools in selecting and evaluating materials for regional center purchase. The study also found a general reluctance on the part of regional centers to offer guidelines for the utilization and distribution of materials.

Pfister (1970) studied the utilization and function of district professional libraries in Michigan. Using a combination of questionnaires and interviews of users and non-users of the district collections, Pfister was able to ascertain the following information:

1. Major uses for professional information or materials were curriculum study and development, personal professional growth, and graduate study requirements.

2. School building personnel used the collections less than did district-wide personnel.

3. Respondents from large districts were more favorable in their ratings of the district collections than were respondents from small districts.

4. School personnel who did use the district collections were generally older, had more experience, and had higher academic degrees than nonusers of the collections.

Pfister recommended that regional media centers take a more active role in providing professional material services to small district schools. It was also recommended that regional media centers serve small districts by establishing in-service programs for local media specialists, and maintaining active communication with these media specialists.

In 1972, Guise surveyed the elementary and secondary school media centers in the state of Arkansas. The survey was designed to determine the adequacy of these centers when compared with the 1960 and 1969 national standards. When media specialists were queried as to their greatest needs for improving services, 46% reported a need for more leadership from state and regional education agencies. Guise recommended more support from the regional centers in improving local school media programs.

Attitudes Toward Media Program Cooperation

Heller, Kohl, and Lusthaus (1972) and Dyer (1976) observed that the notion of cooperation among different education programs, including media services, was generally well received among educators in theory, but was frequently met with strong resistance in practice.

In an effort to provide some empirical evidence of attitudes toward cooperation between educational programs on a regional basis, Heller et al. (1972) undertook a study in a three-county area of Pennsylvania. Four groups of participants were selected for the investigation: administrators, teachers, school board members, and selected influential laymen. The survey instrument included five areas in which school systems might cooperate: financial, research and planning, special education, centralized services, and human

relations. Media services were a part of the centralized services area on the instrument. Respondents were asked to indicate their attitude (1-Disagree a lot to 5-Agree a lot) toward each area.

A multivariate analysis of variance of the differences between the four groups of attitudes was significant at the .01 level of confidence relative to cooperation in centralized services. The analysis revealed the following:

1. While respondents agreed that school systems should cooperate in school purchases, no respondent group favored a central storage facility.

2. Administrators (80%) strongly favored a cooperative computer and data processing unit. In contrast, less than 65% of the other respondents agreed.

3. Only 43% of the respondents believed the Regional Instructional Material Center to be a satisfactory experience in regional sharing.

Dyer (1976) found that attitudes of administrators, supervisors, and other policy makers tended to inhibit sharing of resources among different types of educational institutions. Dyer studied cooperation between public school media centers and public libraries in offering services to children. Finding very little that was positive in the study, Dyer concluded that traditionalism, commitment to self-preservation, protection of territory, and suspicion of those favoring cooperation would prevent open cooperation between these two types of library media programs in the very near future.

Services from Regional Media Centers in Iowa

The Iowa Department of Public Instruction (1975) out-
lined the general principle under which the regional media
centers in Iowa were to operate:

> Media services shall be made available to all students
> and teachers of local school districts within the boun-
> daries of a given Area Education Agency and which may
> be made available to non-public students from prekinder-
> garten through secondary schools. ...the area educa-
> tion agency shall supplement, support and encourage the
> development of, but not supplant, these local centers
> and services (p. 1).

The DPI also suggested that a responsibility of the Area

Education Media Center was:

> Providing leadership and working with local school per-
> sonnel in the planning and equipping of media centers,
> the selection of the materials and equipment, including
> planning general facilities for effective use of print
> and non print materials (p. 7).

Specific services from the regional media centers were deter-
mined to be (1) a materials lending library, (2) a profes-
sional library, (3) a curriculum laboratory, (4) delivery
services, and (5) consultative services.

Ingram (1972) summed the purpose of the regional media
centers in Iowa as being one of providing elementary and
secondary schools with a greater quantity of instructional
materials of high quality. To determine if this purpose was
being fulfilled, Ingram studied the perceptions of elementary
school teachers as to the quality of services offered from
the 16 (later reduced to 15 in 1974) centers in Iowa.

In his study, Ingram (1972) concluded the following:

1. Level of grade assignment appeared to influence teacher perceptions of materials from the regional centers. Teachers in K-3 grades rated materials lower than did teachers in grades 4-6.

2. Teachers who used materials from the centers often rated materials and services higher than did teachers who were infrequent users.

3. Overall, teachers reported a need for more in-service training in the use and production of educational media.

The preceding sections exploring planning, evaluation, research, professionalism, and external cooperation suggest a general concern with improvement of the media program, either through the use of a direct approach to the program itself, or through a program of professional self-improvement by the media specialist. The School Library Manpower Project (1975) had found evidence that the level of training of media specialists was related to the amount of involvement in activities designed to improve the media program. Therefore, it is hypothesized in this study that a positive relationship exists between level, as well as type, of training of media specialists and their involvement in media center improvement activities.

Burnell (1979) reported a positive relationship between size of school district and principal perceptions of the media specialist's role im improving the media program. This study hypothesized that there is a positive relationship between school district size and media specialists' perceptions of their role in media center improvement.

School Media Specialist Perceptions
in Iowa

The search for previous investigations of the percep-
tions of media professionals in Iowa schools resulted in the
identification of two helpful studies.

Hardman (1971) investigated the philosophy of role and
critical tasks of Iowa elementary and secondary school media
specialists. The study had three purposes:

1. To develop a philosophy of educational media,

2. To develop a philosophy of the role of media
    specialists in elementary and secondary schools,

3. To identify the critical tasks of elementary and
    secondary school media specialists.

A random sample of elementary and secondary school media
specialists was sent the "Basic Beliefs Study" which con-
tained 199 statements of belief concerning educational media.
Respondents were asked to agree or disagree with each of the
statements on a one to five Likert scale. Response means to
the statements were used to derive conclusions about the be-
liefs, role, and tasks of the respondents.

Philosophy statements revealed that media specialists
believed that students and teachers should have the oppor-
tunity to use a wide variety of media to facilitate the
learning process. Responses to the role statements showed
that the school media specialist's role was as manager, cur-
riculum specialist, consultant, and teacher of media. The

most critical tasks of the media specialist fell into the categories of utilization, consultation, and adminitration. Hardman (1971) also noted that the constant interaction of the media specialist with administrators, teachers, and students tended to define the media specialist's role as being primarily one of working with people and secondly with technical, production, and operational processes.

Five years later, Moore (1976) collected and analyzed data on the professional characteristics of educational media personnel in Iowa public schools. Perceptions of both certified and noncertified personnel were included in the study. Two hundred and fifty-two elementary school principals and 160 secondary school principals were asked to distribute a four-part questionnaire designed for the school media specialist. One hundred and seventy-seven questionnaires were returned as usable.

Data from the questionnaires were used to meet the following research objectives:

1. To identify the academic and experiential backgrounds of people working as nonprint or print/nonprint media specialists in Iowa.

2. To identify major areas of competency that professional media personnel felt were vital to the preparation of media personnel.

3. To identify the professional time spent (by percentage) in nine major task areas specified in Silber's Domain of Instructional Technology model.

4. To identify types of tasks within these same nine

categories for which Iowa school media personnel were responsible.

5. To identify the Iowa school media center staffing patterns in relation to the suggestions from media center staffing made in 1975 by AASO and AECT.

Cross-tabulations of the data revealed interesting characteristics of media personnel in Iowa schools. Among these were:

1. A substantial percentage (53% of elementary and 33% of secondary) of the media personnel had had three courses or less of formal media training.

2. The three experiences considered most important in the preparation of media specialists were a general course in audiovisual communication, library science courses, and an internship in a media center.

3. Largest percentages of media specialist time were spent on organization/management (19.3%), utilization (18.6%), and support/supply (18.5%).

4. Least amount of time was spent on design (3.3%) and research (3.1%).

5. Media centers failed to meet the standards in professional and nonprofessional staffing suggested by AASL and AECT.

In light of these findings, Moore (1976) noted:

It appears that survival rather than development of the media center must be the primary goal of Iowa media personnel (p. 58).

The two studies discussed above provided important insight into the functions of school media specialists in Iowa as determined by the perceptions of those media personnel at both the elementary and secondary school levels. The studies, however, provoke further questions. The Hardman study failed to relate perceptions of critical tasks to background and

working situations of the respondents. Also, that study was concerned with the level of acceptance of a unified media center concept among practitioners. This was an important question at the beginning of the 1970s, but appears no longer valid at the beginning of the 1980s. What are the critical areas of tasks for Iowa school media specialists now that the concept has been generally accepted?

The nine categories of tasks designated in Moore's study were developed in the area of instructional technology, and were designed for a broad spectrum of media centers, not primarily for school centers. Also, data from the study reflected the perceptions of noncertified personnel. How do Iowa's school media specialists perceive their functions in areas specifically defined and designated appropriate for school center professionals who must often work without the assistance of support staff? Perceptions in the two investigations could possibly differ, thereby yielding different conclusions.

Summary

The literature was useful in exploring facets and ramifications of the six functions of the school media specialists which were specified for investigation. It provided rationales and models for participation in these areas of activities, emphasizing the important benefits to media center

clients as well as to the overall development and improvement of the media program as an integral part of the educational process.

There was some evidence of factors which had been found to influence the performance of school media specialists in these functions. Wherever possible, attempt was made to isolate these factors.

The following conclusions have been drawn from the review of literature:

1. The significant contribution of the School Library Manpower Project to the library media field was the identification of the multiplicity of functions and tasks of school media personnel.

2. The six functions under study in this paper have been deemed appropriate for school media specialists by other writers and researchers.

3. There is inconclusive evidence concerning the acceptance or rejection of the instructional development function by school media specialists.

4. Few attempts have been made to isolate and explain factors which influence the performance of school media specialists. When such attempts have been made, most investigators have studied the effects of training or experience of media specialists, or the behavior of school principals.

5. Researchers have used the questionnaire, observation, or interview technique in studying the functions of school media specialists.

6. Except in the area of instructional development, the extent of empirical findings relative to the six functions under investigation is significantly limited.

CHAPTER THREE.   METHOD OF PROCEDURE

The purpose of this study was to analyze the perceptions
of secondary school media specialists of their performance in
six functions, and to determine the perceived importance of
the functions to the media specialists' programs. It was also
a purpose of the study to relate these perceptions to selected
background and demographic variables associated with media
professionals in secondary schools in Iowa. The variables
were defined in order to accomplish the purposes of the study.

Background and Demographic Variables

The method of research was a correlation analysis and
one-way analysis of variance in which perceptions of the six
functions were correlated with four selected identifying vari-
ables associated with media professionals in Iowa secondary
schools. Influence of the fifth variable was examined through
the use of one-way ANOVA. These five variables were:

1. Number of quantified guidelines met by the center
   in which the media specialist was employed.

2. Size of the school district in which the media
   specialist was employed.

3. Location (Area Education Agency region) of the
   school in which the media specialist worked.

4. Professional endorsement held by the media
   specialist.

5. Number of years the media specialist had worked in
   his or her present building assignment.

In order to test the hypotheses for the study, subjects were stratified according to subgroup specifications. Subgroups were defined and specified in the following manner:

a. There were 36 Iowa Department of Public Instruction guidelines for secondary school media centers. Schools meeting various numbers of these were divided into three groups:

Low group - schools meeting 0-13 guidelines

Medium group - schools meeting 14-16 guidelines

High group - schools meeting 17 or more guidelines.

b. District size groups were defined according to the specifications outlined by McGrew and Buckingham (1978, p. 5):

Size	Total district enrollment
1	up to 499
2	500 to 749
3	750 to 999
4	1000 to 1499
5	1500 to 1999
6	2000 to 2999
7	3000 - over

c. Location was defined as the geographic region encompassed by each of the 15 Area Education Agencies in Iowa (see Appendix). The 15 AEA regions were designated by the Iowa Department of Public Instruction (1975) to be:

AEA			
1 =	Elkader	9 =	Davenport
2 =	Clear Lake	10 =	Cedar Rapids
3 =	Cylinder	11 =	Ankeny
4 =	Sioux Center	12 =	Sioux City
5 =	Fort Dodge	13 =	Council Bluffs
6 =	Marshalltown	14 =	Creston
7 =	Cedar Falls	15 =	Ottumwa
		16 =	Fort Madison

d. Endorsement groups for media specialists were specified according to the certification standards of the Iowa DPI. These certifications were:

    (1) Approval #86 - Teacher Librarian, 20 semester hours in library science

    (2) Endorsement #34 - School Librarian, 30 semester hours in library science

    (3) Endorsement #51 - Director of Library Services, master's degree in library science

    (4) Endorsement #39 - Educational Media Specialist, Master's degree in audiovisual technology

    (5) A fifth group was defined as those holding both Endorsements #51 and #39.

Subjects holding the first three types of endorsements had received professional training primarily in schools of library science. They may or may not have had teaching experience. On the other hand, holders of endorsement #39 were primarily trained in colleges of education. Generally, these subjects had had some experience in the classroom.

e. The number of years in which the media specialist had worked in his/her present building assignment was defined by the following group code:

        Year group 1 - less than 3 years
                    2 - 3 to 5 years
                    3 - 6 to 9 years
                    4 - 10 years or more

The Hypotheses

1. There is no relationship between frequency of performance, or importance of performance, in each of six functions of media specialists and the number of minimum guidelines met by the school center in which the media specialist works.

2. There is no relationship between the frequency of performance or the importance of performance in each of six functions of media specialists and the size of the school district in which the media specialist works.

3. There is no significant difference between the perceptions of media specialists of their performance, or importance of performance, in each of six functions when stratified by location (AEA region).

4. There is no relationship between the frequency of performance or the importance of performance in each of six functions of media specialists and the type of endorsement held by the media specialist.

5. There is no relationship between the frequency of performance or the importance of performance in each of six functions of media specialists and the number of years the media specialist has worked in his or her present building assignment.

Assumptions

In planning and completing this study, the investigator assumed that the responses to items on the data collection instrument accurately reflected the perceptions of the respondents.

Data Collection Instrument

Data for the study were collected through the use of
a two-part questionnaire. The questionnaire was entitled
The Behavioral Analysis Checklist (BAC). Part I of BAC
sought information concerning the background of the subject,
including the type of professional endorsement held and the
number of years the subject had been working in his or her
building assignment. An additional item asked the respon-
dent to indicate his or her membership status in 10 pro-
fessional associations (see Appendix Table A5).

Part II of the questionnaire contained 82 task state-
ments which were grouped under the six functions. Statements
1 through 15 pertained to the activities of the media spe-
cialist in developing human relationships in the media center.
Task statements 16 through 33 were concerned with the media
specialist's involvement in designing, developing, and evalu-
ating instructional strategies. The planning and evaluation
function was covered in statements 34 through 48. The re-
search function contained 11 task statements, 49 through 59.
Statements 60 through 72 concerned the media specialist's
involvement in professional growth activities. The final 10
statements, 73 through 82, pertained to the media specialist's
involvement with the services, activities, and staff of his/
her Area Education Agency Media Center.

Each task statement on the questionnaire was assigned
five options for frequency of task performance (0 = never to
4 = always) and five options for importance of task perfor-
mance (0 = minor importance to 4 = major importance). Re-
spondents were asked to choose an option on each of the two
scales for each statement.

Defining the Population

One of the purposes of this study was to relate the
functions of school media specialists to the number of mini-
mum standards met by the centers in which these media spe-
cialists were employed. It was, therefore, necessary to de-
termine if a comparison of school media centers to national
or state standards had been completed in Iowa.

A recent survey of the status of elementary and secondary
school media service in Iowa had been conducted by McGrew
and Buckingham (1978) for the Iowa Department of Public In-
struction. The purpose of the survey was to determine the
number of Iowa DPI guidelines which had been met by school
media centers in the state.

A list of the secondary schools that had participated
in the McGrew and Buckingham survey was obtained from micro-
fiche in the Grimes State Office Building in Des Moines.
Those schools employing at least one full-time media special-
ist were selected from the list. The list of full-time

media specialists in the participating secondary schools was then updated and verified by computer for the 1980-81 school year.

There were 368 full-time media specialists who worked in the secondary schools from the survey; 326 of these worked in centers with one full-time professional, and the other 42 were employed in centers with at least two professionals on staff. The highest concentration of schools with full-time professional staff was in size 7 school districts. Table 1 shows the distribution of full-time media professionals selected from the McGrew and Buckingham survey by school district size.

Table 1. Distribution of media specialists in original population by school district size

District size code	Number	Percent
1 (smallest)	54	14.7
2	45	12.2
3	47	12.8
4	52	14.1
5	21	5.8
6	30	8.1
7 (largest)	119	32.3
Totals	368	100.0

One hundred of the 368 subjects in the original population were selected to pretest the questionnaire. A table of random numbers was used to select the pretest sample. The 268 remaining subjects comprised the final population for the study. Table 2 shows the distribution of subjects in the final population by school district size.

Table 2. Distribution of media specialists in final population by school district size

District size code	Number	Percent
1 (smallest)	36	13.4
2	29	10.8
3	32	12.0
4	38	14.2
5	16	6.0
6	21	7.8
7 (largest)	96	35.8
Totals	268	100.0

Pilot Test of the Questionnaire

The Behavioral Requirements Analysis Checklist (BRAC) (SLMP, 1973) was used as the primary source of task statements on the questionnaire. The BRAC contained more than 700 tasks grouped under seven broad competency areas for

professional school media personnel. In addition to the statements in BRAC, a large number of activities in the external cooperation function had been generated by the investigator from the literature and from personal experience. Such a large number of statements did not seem feasible for use in a single study. Therefore, it was necessary to reduce this number into a more practical instrument for data collection. The following steps were taken to accomplish this objective.

First, only five of the seven broad competency areas, with accompanying tasks, were chosen from BRAC for investigation. These areas were: (1) Human Behavior, (2) Learning and Learning Environments (Instructional Development), (3) Planning and Evaluation, (4) Research, and (5) Professionalism.

Second, suggestions for using BRAC were obtained from the directors of the School Library Manpower Project by telephone. Also, copyright permission to use the selected sections of BRAC was obtained from the Office of Rights and Permission of the American Library Association in Chicago.

Third, the initial draft of the questionnaire was pretested using 100 randomly selected media specialists from the original population.

The initial draft of BAC contained 143 task statements. In addition to indicating frequency and importance of per-

formance for each task statement, pretest subjects were asked to complete a five-item Checklist Evaluation Form. The form asked respondents to (1) indicate the length of time used to complete the BAC, (2) the number(s) of any item(s) which should be reworded, (3) the number(s) of any item(s) which should be deleted, (4) overall rating of the questionnaire, and (5) suggestions or comments for improving the questionnaire.

Fifty-two of the 100 selected media specialists responded to the initial questionnaire. Only 51 of the returned questionnaires were used in the pilot test data analysis as one questionnaire arrived too late for inclusion.

The 51 responses to the initial BAC were analyzed using inter-item and item-subscale correlations. It was decided to delete any item which did not correlate at least .55 with its respective subscale as this was observed to be a natural dividing point in the range of coefficients. The 143 task statements were thus reduced to 82.

Using the item-scale correlations and suggestions from the pretest subjects, a final questionnaire was developed.

Instrument Reliabilities

The pretest responses to the questionnaire were used to calculate reliability coefficients for each of the 12 subscales. These coefficients are reported in Table 3. Table 4 shows reliability coefficients computed for the revised version of BAC.

Table 3. Cronbach alpha coefficients for pilot questionaire

Function	Frequency subscales	Importance subscales
Human behavior	.911	.881
Industrial development	.939	.944
Planning and evaluation	.961	.959
Research	.932	.938
Professionalism	.915	.933
External cooperation	.915	.940

Table 4. Cronbach alpha coefficients for revised question-
naire

Function	Frequency subscales	Importance subscales
Human behavior	.858	.849
Instructional development	.911	.895
Planning and evaluation	.923	.921
Research	.933	.927
Professionalism	.858	.893
External cooperation	.911	.929

Method of Data Collection

The population was sent the Behavioral Analysis Check-
list (BAC) by U.S. mail in April 1981. A cover letter ex-
plaining the purpose of the study and urging participation
accompanied the checklist. A return self-addressed and
stamped envelope was included in each packet of materials.
Each media specialist was asked to complete and return the
checklist within two weeks after receiving it. Follow-up con-
tact with the sites from which questionnaires had not been re-
ceived after the two weeks was made by telephone.

Treatment of the Data

District size code, AEA location, and the number of
guidelines code were assigned to each returned questionnaire.
These data had been obtained from microfiche in the Grimes
State Office Building in Des Moines.

The distribution of media specialists who responded to
the questionnaire is presented in Table 5. All data have been
reported by the district size of the school in which the
media specialist worked. The table shows the number of
questionnaires sent, the number of returned questionnaires,
number usable, district response rate, and percent of total
usable questionnaires.

Media specialists in district size 1 represented the
only group returning less than one-half of its questionnaires.

Table 5. Responses to questionnaire by school district size

District size code	No. sent	No. returned	No. usable	District return rate (%)	Percent of total usable
1	36	16	15	44.4	9.6
2	29	19	19	65.5	12.2
3	32	20	20	62.5	12.8
4	38	29	27	76.3	17.3
5	16	9	9	56.2	5.8
6	21	13	13	61.9	8.3
7	96	55	53	57.2	34.0
Totals	268	161	156		100.0

District size 4 showed the best response rate with 76.3% of its questionnaires being returned.

Tables 6 through 9 show the distribution of subjects by guideline groups, AEA region, endorsement, and number of years in building assignment. Guideline groups were almost evenly distributed in the population with only 8.4 percentage points separating the low and high groups (Table 6). Area 11 accounted for the highest concentration of subjects, while Area 16 had the least concentration (Table 7).

Table 8 shows that 89.1% of the media specialists held

Table 6. Distribution of population by number of guidelines met

Group	Number	Percent of population
Low (0-13)	45	28.8
Medium (14-16)	53	34.0
High (17 or more)	58	37.2
Total	156	100.0

Table 7. Distribution of population by location (AEA)

AEA	Number	Percent of total population
1	5	3.2
2	6	3.8
3	5	3.2
4	6	3.8
5	12	7.7
6	12	7.7
7	10	6.4
9	13	8.3
10	19	12.2
11	27	17.3
12	6	3.8
13	10	6.4
14	8	5.1
15	13	8.3
16	4	2.6
Total	156	100.0

Table 8.   Distribution of population by endorsement

Endorsement	Number	Percent
#86	14	9.0
#34	70	44.9
#51	55	35.3
#39	12	7.7
#51 + #39	5	3.2
Total	156	100.0

Table 9.   Distribution of population by number of years in present assignment

Years	Number	Percent
Less than 3	35	22.4
3 - 5	30	19.2
6 - 9	31	19.9
10+	60	38.5
Total	156	100.0

endorsements primarily in library science, and another 3%

had been trained in both library science and audiovisual

technology. Almost half of the respondents (46.1%) had

masters degrees.

More than one-third of the media specialists had worked

in their present assignments for 10 years or longer (Table 9).

The other two-thirds appeared evenly distributed among the

remaining three classifications. With almost 60% of the

media specialists reporting continuous service in the same

building for more than five years, there was evidence of a

high degree of stability and professional experience among

the respondents.

Table 10 shows the distribution of endorsement subgroups

when broken down by number of years in present building

assignment. Fifty percent of the #86 endorsement subgroup

had been working in their present assignments for six or more

years. More than 50% of media specialists in each of the

other endorsement subgroups had worked in their assignments

six years or longer.

Tables 1 and 2 and Tables 5 through 10 were useful in

observing the distribution of subjects according to the five

background and demographic variables. Table 2 revealed that

this distribution paralleled that of the original population

as reported in Table 1.

Table 10. Distribution of population by endorsement and
years in present assignment (n = 156)

Years	#86 (9%)	#34 (44.9%)	#51 (35.3%)	#39 (7.7%)	#39+#51 (3.2%)
Less than 3	5	21	5	2	2
3 - 5	2	8	17	3	0
6 - 9	3	13	10	4	1
10+	4	28	23	3	2
Total	14	70	55	12	5

CHAPTER FOUR. FINDINGS

In order to analyze the performance in each of the six functions, subjects were asked to rate the frequency in which they engaged in 82 tasks. The tasks had been assigned in six clusters on the questionnaire. A 0 to 4 scale was provided for rating the frequency of each task. Options for frequency ratings were as follows:

    0 = Never
    1 = Seldom
    2 = Sometimes
    3 = Often
    4 = Always

Responses to scales in each cluster of tasks were summed and a mean for the cluster was computed. Standard deviations and variances were also computed. The resulting statistics were used as a measure of performance in each function. These data appear in Table 11.

Subjects were also given options for rating the importance of the same clusters of tasks. Options for rating the importance of each task were as follows:

    0 = Minor importance
    1 = Less than average importance
    2 = Average importance
    3 = More than average importance
    4 = Major importance

The perceived importance of each of the functions was determined by using the same steps outlined above. Statistics for the six importance subscales are presented in Table 12.

Table 11. Mean ratings on frequency subscales for entire
          population (n = 156); range: 0 = never, 4 =
          always

Subscale	Mean	Standard deviation
Human behavior	2.86	.50
Instructional development	1.94	.62
Planning and evaluation	2.31	.76
Research	1.52	.88
Professionalism	2.00	.67
External cooperation	1.83	.87

Table 12. Mean ratings on importance subscales for entire
          population (n = 156); range: 0=minor importance,
          4 = major importance

Subscale	Mean	Standard deviation
Human behavior	3.26	.42
Instructional development	2.73	.56
Planning and evaluation	2.97	.60
Research	2.28	.78
Professionalism	2.62	.62
External cooperation	2.51	.82

Mean ratings on the six frequency subscales ranged from a high of 2.86 for human behavior to a low of 1.52 for research. The order of these ratings indicated that media specialists were most involved in developing human relationships in the media center, and least involved in solving media center problems through the use of systematic problem-solving methods. The research function, as defined on the questionnaire to respondents, and as outlined in the review of literature, did not include the daily "reference question" type activities common to library media centers. In order to engage in the function as defined here, the media specialist had to understand and apply scientific research techniques to media center problems. Burnell (1979) had found that secondary school principals in Iowa perceived a low level of performance in research by their media specialists. Findings in the present study mirror those perceptions.

Media specialists perceived human behavior as the most important function of their media programs (Table 12). This finding is congruent with that of Hardman (1971) and the School Library Manpower Project (1975). Subjects perceived research as being the least important function, reporting a mean rating of 2.28.

Instructional development was rated fourth on the frequency subscales (Table 11), and received the third highest rating on the importance subscales (Table 12). Profession-

alism was rated third on the frequency subscales (2.00), but received fourth highest rating (2.62) on the importance subscales.

Tests of Hypotheses

The data were examined utilizing two statistical techniques. One-way analysis of variance was used with all data. The first examination and results are reported as general conclusions. The second examination used all data except those related to Area Education Agencies (AEA) and employed correlation techniques. Results of this examination are reported in terms of the stated hypotheses.

Tests using one-way analysis of variance

Tables 13 through 17 show mean ratings on each of the 12 subscales when responses to Part II of the questionnaire were stratified by the five subgroup classifications. Tables 13, 14, 16, and 17 also give the F ratios with their respective probabilities for significant differences between subgroup ratings. The F ratios with probabilities for the 15 location subgroups are reported in Table 20.

When responses of media specialists were stratified by number of guidelines subgroups, as shown in Table 13, human behavior received the highest ratings on both frequency and importance subscales for all three subgroups. Research was

Table 13. Mean ratings on frequency and importance subscales by number of guideline groups

Frequency subscales	Low group (n=45) Mean	SD[a]	Medium group (n=53) Mean	SD	High group (n=58) Mean	SD	F ratio[b]	F prob.
Human behavior	2.86	.50	2.89	.45	2.84	.55	.091	.912
Instructional development	1.88	.68	1.90	.60	2.02	.59	.745	.475
Planning and evaluation	2.20	.91	2.36	.68	2.36	.69	.770	.464
Research	1.50	.81	1.50	.93	1.56	.85	.080	.923
Professionalism	2.03	.67	1.90	.64	2.07	.71	.974	.380
External cooperation	1.79	1.06	1.77	.75	1.92	.81	.455	.635

Importance subscales								
Human behavior	3.29	.42	3.20	.42	3.29	.42	.845	.431
Instructional development	2.73	.58	2.70	.63	2.76	.48	.144	.866
Planning and evaluation	3.01	.67	2.93	.56	2.97	.57	.195	.823
Research	2.32	.83	2.26	.83	2.28	.69	.090	.913
Professionalism	2.26	.64	2.57	.64	2.65	.60	.217	.805
External cooperation	2.64	.83	2.49	.86	2.44	.77	.774	.462

[a]SD = standard deviation.

[b]df = (2,153).

rated lowest in both frequency and importance. The F statistics showed no significant differences between the ratings on any of the scales.

The widest variance from a group mean on the frequency subscales was in external cooperation for the group meeting the fewest number of guidelines. This indicated that media specialists in these centers interfaced with their regional media centers from practically "never" to "often". Though the analysis of variance revealed no two subgroups significantly different in their perceptions of the six functions, the ratings for the importance of planning and evaluation, and external cooperation for the low guidelines subgroup were interesting. Perhaps media specialists in the least developed centers are aware of their centers' shortcomings, and perceive a strong need for further development and improvement. It also suggests that these subjects are aware of the potential of the regional centers in providing additional materials and services for their centers.

The data from Table 14 showed that district size subgroups differed significantly in their perceptions concerning the frequency in which they engaged in tasks in instructional development and in planning and evaluation. Post hoc tests (Newman-Keuls) revealed no significant difference in these ratings for instructional development. The ratings, however, were significantly different between the two smallest size

Table 14. Mean ratings on frequency and importance subscales by school district size

Frequency subscales	Size 1 (n=15)		Size 2 (n=19)		Size 3 (n=20)	
	Mean	SD[a]	Mean	SD	Mean	SD
Human behavior	2.67	.48	2.74	.41	2.89	.37
Instructional development	1.64	.60	1.57	.50	2.06	.53
Planning and evaluation	1.91	.80	1.95	.71	2.43	.66
Research	1.19	.86	1.26	.86	1.58	.88
Professionalism	1.92	.56	1.57	.78	2.08	.47
External cooperation	1.75	1.04	1.60	.86	2.15	.69

Importance subscales						
Human behavior	3.18	.35	3.20	.43	3.37	.32
Instructional development	2.62	.53	2.54	.53	2.85	.58
Planning and evaluation	2.75	.58	2.76	.69	3.08	.48
Research	2.19	.76	2.18	.74	2.52	.60
Professionalism	2.67	.50	2.41	.70	2.76	.59
External cooperation	2.76	.59	2.39	.93	2.78	.66

[a]SD = standard deviation.

[b]df = (6,149).

*Significant at the .05 level.

Size 4 (n=27)		Size 5 (n=9)		Size 6 (n=13)		Size 7 (n=53)		F ratio[b]	F prob.
Mean	SD	Mean	SD	Mean	SD	Mean	SD		
2.90	.38	2.74	.45	2.92	.51	2.94	.62	.945	.464
2.03	.50	1.90	.42	2.00	.74	2.05	.69	2.321	.035*
2.36	.64	2.23	.64	2.52	.71	2.46	.82	2.134	.052*
1.51	.80	1.18	.65	1.59	1.04	1.73	.91	1.381	.225
1.97	.55	2.05	.51	2.25	.86	2.10	.72	1.865	.090
2.08	.72	1.46	.88	2.04	.77	1.70	.94	1.682	.129
3.26	.39	3.04	.38	3.16	.43	3.32	.47	1.107	.360
2.82	.49	2.55	.45	2.69	.70	2.79	.58	.969	.448
2.95	.56	2.85	.50	2.95	.53	3.10	.65	1.318	.252
2.21	.70	1.86	.71	2.24	.73	2.38	.90	1.011	.420
2.57	.51	2.48	.45	2.70	.76	2.65	.68	.689	.658
2.58	.63	2.27	.68	2.68	.67	2.35	.99	1.226	.296

districts and the two largest size districts in planning and
evaluation.

It would not be unreasonable to assume that media spe-
cialists in large districts would have more resources at
their disposal, thereby necessitating more frequent changes
in program services. It is also indicative of the fact that
centers staffed with two media specialists were concentrated
in the larger districts, allowing these professionals more
time for planning and evaluating program activities. However,
the least performed tasks were in research for size 5 sub-
jects. Because there were only nine respondents from dis-
tricts of this size, the reader is advised to take caution
in interpreting this rating. However, when the ranking of
frequency means for respondents from size 5 districts was
compared to the ranking for the 53 respondents from size 7
districts, there was consistency between the two subgroups.

Media specialists in sizes 1 and 6 districts showed the
widest variances from their group means on any of the 12 sub-
scales. This deviation was 1.04 in external cooperation for
size 1, and the same on research for size 6. This large
deviation from the mean in external cooperation for size 1
districts was consistent with the data in Table 13, as most
of the centers meeting fewest guidelines were concentrated
in the smallest size districts.

Though media specialists in size 6 districts varied

widely in the frequency to which they engaged in research tasks, they were somewhat more consistent in their perceptions of the importance of research.

Table 15 shows the breakdown for responses by Area Eduation Agency region. Table 20 shows results of analysis of variance between AEA subgroup ratings. The distribution of subjects across 15 locations resulted in several ratings in Table 14 being based on less than 10 responses. Therefore, these ratings, at best, can serve only as tentative measures of the perceptions of media specialists in these regions.

The highest mean rating on the six frequency subscales in Table 15 was 3.32 in human behavior for media specialists in AEA 2. The lowest rating was in research (1.03) for AEA 4. Media specialists in AEA 2 and AEA 15 were the only location groups which engaged in five of the six functions at levels above 2.00. However, the large deviations from two of the five frequency means for AEA 2 should temper any conclusions concerning task frequency in that region. The consistently low means on the six frequency subscales and the consistently high deviations from the means in AEA 16, coupled with a low number of responses, made it impossible to draw any conclusions concerning frequency ratings for that location. Media specialists in AEA 3 had the smallest overall variations from their means on the six frequency subscales.

Media specialists in AEA 11, which had the largest

Table 15. Mean ratings on frequency and importance subscales by AEA region

Frequency subscale	AEA 1, n=5		AEA 2, n=6		AEA 3, n=5		AEA 4, n=6		AEA 5, n=12	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Human behavior	3.09	.36	3.32	.48	2.94	.23	2.58	.24	2.67	.58
Instructional development	2.11	.45	2.42	.72	2.15	.50	1.74	.42	1.84	.52
Planning & evaluation	2.40	.99	2.54	1.00	2.52	.45	1.72	.28	2.23	.75
Research	1.70	.96	1.86	1.09	1.21	.78	1.03	.86	1.25	1.14
Professionalism	1.86	.41	2.35	.53	1.93	.33	1.93	.61	1.86	.75
External cooperation	1.58	.93	2.46	1.10	1.62	.26	1.95	.92	1.80	.92

Importance subscale										
Human behavior	3.41	.54	3.45	.53	3.34	.41	3.32	.27	3.19	.32
Instructional development	2.96	.77	3.13	.78	2.75	.42	2.59	.40	2.64	.60
Planning & evaluation	3.20	.74	3.17	.71	2.86	.44	2.56	.44	2.72	.63
Research	3.01	.67	2.72	.96	1.96	.62	1.71	.52	1.99	.84
Professionalism	2.60	.76	3.00	.69	2.58	.32	2.46	.31	2.37	.61
External cooperation	2.38	1.19	2.96	.83	2.36	.27	2.65	.51	2.49	.78

Table 15. (Continued)

Frequency subscale	AEA 6, n=12		AEA 7, n=10		AEA 9, n=13		AEA 10, n=19		AEA 11, n=27	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Human behavior	2.78	.50	2.90	.51	2.96	.57	2.87	.35	2.92	.49
Instructional development	1.78	.44	2.10	.77	1.94	.49	2.05	.48	1.88	.67
Planning & evaluation	2.41	.55	2.41	.90	2.29	.66	2.41	.54	2.28	.86
Research	1.23	.76	1.83	1.09	1.69	.71	1.56	.76	1.48	.84
Professionalism	1.72	.65	2.10	.73	1.86	.71	2.02	.54	1.98	.71
External cooperation	1.63	.43	1.53	.70	1.59	.98	1.86	.83	1.52	.97

Importance subscale										
Human behavior	3.23	.38	3.26	.57	3.26	.50	3.18	.41	3.29	.44
Instructional development	2.61	.44	2.91	.48	2.71	.43	2.80	.52	2.74	.56
Planning & evaluation	2.97	.57	3.32	.40	3.01	.73	3.00	.59	2.96	.61
Research	2.07	.82	2.69	.60	2.34	.86	2.33	.68	2.21	.81
Professionalism	2.48	.58	2.69	.55	2.55	.89	2.58	.61	2.59	.60
External cooperation	2.40	.47	1.90	.84	2.32	1.24	2.29	.91	2.47	.80

Table 15. (Continued)

Frequency subscale	AEA 12, n=6 Mean	SD	AEA 13, n=10 Mean	SD	AEA 14, n=8 Mean	SD	AEA 15, n=13 Mean	SD	AEA 16, n=4 Mean	SD
Human behavior	2.78	.24	2.89	.49	2.86	.40	2.96	.33	2.00	1.21
Instructional development	1.70	.50	1.87	.92	1.95	.35	2.11	.68	1.29	1.20
Planning & evaluation	2.18	.68	2.45	1.12	2.37	.84	2.27	.68	2.03	1.14
Research	1.27	.70	1.89	1.12	1.52	.64	1.67	.83	1.22	1.39
Professionalism	2.00	.44	2.23	.96	2.21	.28	2.30	.64	1.42	1.36
External cooperation	2.03	.69	2.30	.84	1.76	.67	2.54	.76	1.80	1.14

Importance subscale										
Human behavior	3.24	.39	3.25	.35	3.30	.44	3.24	.36	3.03	.60
Instructional development	2.22	.72	2.66	.72	2.77	.34	2.86	.58	2.38	.79
Planning & evaluation	2.81	.43	3.14	.63	2.90	.61	2.94	.54	2.80	.88
Research	2.09	.80	2.62	.65	2.54	.67	2.16	.71	1.93	1.09
Professionalism	2.61	.34	2.90	.74	2.83	.33	2.76	.66	2.28	.78
External cooperation	2.56	.48	2.90	.72	2.72	.53	3.14	.65	2.52	.65

number of subjects, rated only two of the functions above 2.00 on the six frequency subscales. However, the rather high standard deviations on these subscales for planning and evaluation (.86), research (.84), and external cooperation (.92) indicated rather wide variations in the levels of performance in these three functions among AEA 11 subjects.

Subjects in AEA 15 appeared the most involved with their regional media center, reporting a mean of 2.54. AEA 11 media specialists appeared the least involved with their regional center with a mean of 1.52. External cooperation was rated highest in importance by subjects in AEA 15.

The data from Tables 15 and 20 failed to reveal any significant differences between perceptions of respondents when stratified by AEA region. The small number of responses in many of the table cells, coupled with rather large deviations from the means, resulted in inconclusive findings about the functions when examined by location. It is possible that schools are so different that comparisons of media specialists' functions by AEA region are not feasible.

The mean ratings, with standard deviations, F ratios, and F probabilities for the frequency and importance subscales for the five endorsement subgroups are summarized in Table 16.

The data showed that subjects holding endorsements #39, and #39 and #51 were generally more active in the six

Table 16. Mean ratings on frequency and importance subscales by endorsement

Frequency subscales	#86 (n=14) Mean	SD[a]	#34 (n=70) Mean	SD	#51 (n=55) Mean	SD	#39 (n=12) Mean	SD	#51 + #39 (n=5) Mean	SD	F ratio[b]	F prob.
Human behavior	2.71	.69	2.85	.45	2.88	.43	2.87	.79	3.32	.24	1.353	.253
Instr. dev.	1.86	.69	1.90	.57	1.86	.57	2.37	.83	2.57	.36	3.288	.012**
Plan. & eval.	1.99	.71	2.27	.75	2.31	.70	2.78	.90	2.76	.67	2.356	.056*
Research	1.54	.91	1.45	.88	1.45	.82	2.14	1.05	1.65	.86	1.697	.153
Professionalism	1.80	.86	2.02	.61	1.90	.63	2.18	.81	2.96	.48	3.558	.008**
External coop.	1.87	.99	1.85	.86	1.60	.78	2.50	.84	2.38	.88	3.400	.010**

Importance subscales	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F ratio	F prob.
Human behavior	3.17	.47	3.24	.38	3.24	.43	3.38	.48	3.64	.37	1.485	.209
Instr. dev.	2.61	.71	2.72	.50	2.66	.56	3.11	.52	3.25	.55	2.970	.021*
Plan. & eval.	2.60	.66	2.95	.60	2.97	.54	3.37	.63	3.18	.46	2.941	.022*
Research	2.33	.80	2.23	.81	2.29	.68	2.71	.85	1.83	.96	1.455	.218
Professionalism	2.51	.79	2.67	.56	2.51	.60	2.83	.75	2.84	.55	1.150	.335
External coop.	2.62	.97	2.63	.65	2.18	.89	3.10	.70	2.84	.85	4.686	.001***

[a]SD = standard deviation.

[b]df = (4,151).

*,**,***Significant at the .05, .01, and .001 levels, respectively.

functions than were the other three endorsement subgroups.
Significant differences were found between the ratings in
instructional development, planning and evaluation, pro-
fessionalism, and external cooperation. Endorsement #39
media specialists were the only subgroup which rated their
performance on all frequency subscales above 2.00.

Mean ratings on the frequency subscales suggested that
subjects holding master's degrees in library science (#51)
were performing at levels equal to those media specialists
with 30 semester hours in library science (#34) in four of the
functions. These functions were instructional development,
professionalism, external cooperation, and research. The one-
way analysis of variance and post hoc tests revealed that this
suggestion among the mean ratings was actually valid. How-
ever, these data were contrary to those of the SLMP (1975)
study which showed graduates of master's degree programs more
active in functions than graduates of bachelor level programs.
Wert (1970) had also found that school librarians with
master's degrees were more active in media program activities
than were school librarians with less than a master's degree.
Perhaps a further investigation of the levels of training and
nonmedia program responsibilities of media specialists in the
schools could provide more information on which to base a
conclusion.

On the importance subscales, endorsement #39 subjects

rated four of the functions as being "above average" importance. However, only three of the ratings were significantly different from those of the other four subgroups. These ratings were: instructional development (3.11), planning and evaluation (3.37), and external cooperation (3.10). The three subgroups with endorsements primarily in library science perceived human behavior as the only function of "above average" importance to their programs. This paradigm could possibly be explained in this comment written by a respondent holding an endorsement #34:

> Personally, I feel that a library can be outstanding in its own right without a great deal of multi-audio-visual items. Your survey is totally slanted toward an AV type library.

This comment reflected Mugnier's (1979) observation of the reluctance of many entrenched school librarians to accept new and added responsibilities in a well-balanced media program.

The data in Table 17 revealed that frequency ratings generally increased as the number of years in building assignments increased. However, the F statistics show no basic differences between the four subgroup ratings across all 12 subscales.

It appeared that subjects who had been employed in their present buildings for 10 or more years rated their performance in external cooperation (1.71) below that of the other three subgroups. The inference here could be that these media

Table 17. Mean ratings on frequency and importance subscales by number of years in present assignment

Frequency subscales	Less than 3 years (n=36)		3-5 years (n=30)		6-9 years (n=31)		10+ years (n=60)		F ratio[b]	F prob.
	Mean	SD[a]	Mean	SD	Mean	SD	Mean	SD		
Human behavior	2.76	.39	2.81	.46	2.85	.62	2.96	.50	1.408	.242
Instr. dev.	1.76	.57	1.90	.52	2.00	.64	2.03	.67	1.557	.202
Plan. & eval.	2.12	.69	2.34	.80	2.40	.76	2.37	.76	.993	.398
Research	1.38	.81	1.44	.91	1.60	.77	1.60	.97	.620	.602
Professionalism	1.97	.69	1.91	.72	1.92	.65	2.11	.66	.838	.474
External coop.	1.98	.91	1.72	.89	2.01	.79	1.71	.87	1.362	.256

Importance subscales	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F ratio	F prob.
Human behavior	3.17	.39	3.24	.43	3.30	.45	3.30	.42	.778	.508
Instr. dev.	2.65	.46	2.70	.54	2.82	.47	2.75	.66	.566	.638
Plan. & eval.	2.92	.51	2.97	.76	2.99	.60	2.98	.57	.096	.962
Research	2.16	.65	2.24	.80	2.27	.78	2.39	.84	.645	.587
Professionalism	2.61	.60	2.60	.75	2.63	.50	2.62	.63	.010	.998
External coop.	2.66	.75	2.52	.91	2.68	.65	2.34	.87	1.712	.166

[a]SD = standard deviation.

[b]df = (3,152).

specialists have had the length of service needed to build their programs to levels in which there is less need for outside help. However, when one considers the rating of 1.72 for subjects with 3 to 5 years in their assignments, and the rating of 2.01 for subjects with 6 to 9 years, the above explanation becomes untenable. A better explanation for this rating probably lies in the fact that more than 41% of the endorsement #51 media specialists had worked 10 years or more in their present assignments (see Table 10). The data from Table 15 showed that subjects with endorsement #51 had rated external cooperation lowest on both the frequency and importance subscales. It was likely that the data in Table 17 strongly reflected the influence of endorsement #51 subjects when ratings for external cooperation were stratified by years of service in present assignment.

On the importance subscales, all subjects stratified by number of years in building assignments rated five of the six functions as being somewhat above the 2.00 (average) level. Human behavior was generally rated as being "above average" importance across all four subgroups.

In summarizing the data from Tables 13 through 17, and Table 20, the following conclusions were drawn:

1. Human behavior was rated highest on both frequency and importance subscales by all subgroup classifications.

2. Though media specialists in centers meeting 14 or

more guidelines generally rated the six functions higher on
the frequency subscales than did subjects in centers meeting
fewer than 14 guidelines, there were no significant differ-
ences between the ratings for frequency or importance.

3. Media specialists in districts with total enroll-
ments of 750 or more rated instructional development, and
planning and evaluation higher on the frequency subscales
than did media specialists in districts with less than 750
enrollments. Differences between these ratings were only
significant for planning and evaluation.

4. The consistently high standard deviations from the
mean ratings on the subscales, coupled with low response
rates from many of the AEA regions, resulted in inconclusive
findings concerning the functions when stratified by location.

5. Media specialists with certification in audiovisual
technology rated the functions highest on 11 of the 12 sub-
scales. Significant differences were found in the ratings
for instructional development, planning and evaluation,
professionalism, and external cooperation. Subjects with
master's degrees in library science rated only two functions,
human behavior and planning and evaluation, as high as, or
higher than subjects with only 30 semester hours in library
science. It was suggested that further research be conducted
to shed more light on this phenomenon.

6. Media specialists with six or more years in their
present building assignments reported higher ratings on 9
of the 12 subscales. On the frequency subscales, ratings
in professionalism and external cooperation, for subjects
with six or more years, were below those ratings for subjects
with less than six years in their assignments. The same was
true for the external cooperation importance subscale. It
was speculated that the negative perceptions of endorsement
#51 subjects influenced the lower ratings in external
cooperation among those with longer years of service to their
programs. However, none of the ratings were significantly
different when stratified by number of years in present build-
ing assignment.

Tests using correlation analysis

The methodological procedures for this study presented
the four hypotheses that were tested using correlation analy-
sis. Pearson product-moment correlation coefficients were
produced in two matrices. The first matrix (Table 18) shows
coefficients which were obtained when the six frequency sub-
scales were correlated with four of the five classifications
of media specialists. Table 19 depicts coefficients that were
obtained when the six importance subscales were correlated
with the same four classifications. These two matrices were
used to test null hypotheses one, two, four, and five. Co-
efficients reaching .16 were significant at the .05 level.

Those reaching .21 were significant at .01. Null hypothesis three was tested using the analysis of variance procedure. This procedure was used because location (AEA region), as defined in this study, was not a continuous variable, and therefore, was inappropriate for use in correlation analysis. The F ratios were tested for significance at the .05 level of confidence. These are presented in Table 20.

Hypothesis one

Null hypothesis one stated that: There is no relationship between frequency of performance, or importance of performance, in each of six functions of media specialists and the number of minimum guidelines met by the school center in which the media specialist works.

Examination of Table 18 revealed no coefficients significantly different from zero when the frequency subscales were correlated with responses from number of guideline subgroups. The highest correlation was .091, with instructional development. The lowest was -.017 for human behavior. The higher correlation with instructional development could indicate that a minimum level in the amount of materials is needed in the media center before any level of involvement in instructional development is possible.

Table 19 showed that number of guidelines correlated negatively with planning and evaluation (-.025), research

Table 18. Correlation coefficients for classification groups and frequency subscales

	Human behavior	Instr. dev.	Plan. and eval.	Research	Prof.	External coop.
Number of guidelines	-0.0173	0.0911	0.0843	0.0285	0.0325	0.0623
District size	0.1555	0.2125**	0.2271**	0.1884*	0.1773*	-0.0424
Endorsement	0.1416	0.1933*	0.2135**	0.1053	0.1729*	0.0899
Years in present employment	0.1602*	0.1653*	0.1142	0.1039	0.0897	-0.0893

*Significant at .05.

**Significant at .01.

Table 19. Correlation coefficients for classification subgroups and importance subscales

	Human behavior	Instr. dev.	Plan. and eval.	Research	Prof.	External coop.
Number of guidelines	0.0108	0.0260	-0.0253	-0.0216	0.0195	-0.0950
District size	0.0618	0.0876	0.1742*	0.0520	0.0385	-0.1274
Endorsement	0.1567	0.1867*	0.2219**	0.0315	0.0488	-0.0070
Years in present employment	0.1168	0.0760	0.0377	0.1098	0.0109	-0.1378

*Significant at .05.

**Significant at .01.

Table 20. Results of one-way analysis of variance for frequency and importance subscales for AEA regions (n = 156)

Subscales	F ratio[a]	F probability
Frequency subscales		
Human behavior	1.791	.065
Instructional development	1.003	.453
Planning and evaluation	.448	.955
Research	.747	.724
Professionalism	.905	.555
External cooperation	1.652	.072
Importance subscales		
Human behavior	.314	.991
Instructional development	.991	.465
Planning and evaluation	.821	.644
Research	1.513	.113
Professionalism	.711	.760
External cooperation	1.540	.104

[a]$df = (14, 141)$.

(-.022), and external cooperation (-.095) on the importance
subscales. These negative relationships appeared indicative
of the fact that media specialists in centers meeting the
fewest number of guidelines perceived these three functions
as being more important to their programs than did the higher
guideline groups. None of these correlations, however, were
statistically significant.

On the basis of the data from Tables 18 and 19, there
was insufficient evidence to reject null hypothesis one.

Hypothesis two

Null hypothesis two stated: There is no relationship
between frequency of performance, or importance of per-
formance, in each of six functions of media specialists
and the size of the school district in which the media spe-
cialist works.

When frequency subscale ratings were correlated with
district size groups, there were significant positive corre-
lations between these two variables. Instructional develop-
ment and planning and evaluation correlated significantly at
the .01 level with size of school district. These coeffi-
cients were .212 and .227, respectively. Size of school
district also showed a significant (.05) positive relation-
ship with research (.188) and professionalism (.177). These
coefficients indicated that in larger school districts, with
more resources and more adequate staff, media specialists are

able to engage in professional activities more frequently.
These findings are also congruent with those of Turner and
Martin (1978) and Burnell (1979). These writers had sug-
gested that media specialists in large or urban areas re-
ceived more support from their principals, and enjoyed a
high level of professional autonomy in conducting their
media programs.

The negative correlation between district size and ex-
ternal cooperation possibly related to the fact that many
media specialists in large district centers perceived little
need to turn to their regional centers for materials or
services when there was a wide variety of materials in their
school centers. Also, one director of a regional media center
in Iowa explained:

> Many media specialists in the larger district schools
> perceive us as the competition, out to swallow up
> their programs. They, in turn, work hard to maintain
> their independence.

On the importance subscales, size of school district
correlated significantly (.05) with planning and evaluation
(.174).

Data from Tables 18 and 19 revealed that null hypothesis
two should be rejected, as there was evidence of a positive
relationship between size of school district and the percep-
tions of the respondents.

Hypothesis three

Null hypothesis three stated: There is no significant difference between the perceptions of media specialists of their performance, or importance of performance, in each of six functions when stratified by location (AEA region).

The F ratios obtained from the one-way analysis of variance were not significant for the differences between the perceptions of respondents when stratified by AEA region, as indicated in Table 20. This suggested that the AEA region in which the subject worked had no influence on the subject's perceptions as indicated on all 12 subscales. The only F value which approached significance was 1.791 for human behavior on the frequency subscales. Therefore, on the basis of the evidence as presented in Table 20, null hypothesis three could not be rejected.

Hypothesis four

Hypothesis four stated: There is no relationship between frequency of performance, or importance of performance, in each of six functions of school media specialists and the endorsement held by the media specialist.

Correlations between endorsement of subjects and ratings on the 12 subscales produced five coefficients which were significantly different from zero. There were positive relationships between endorsement and instructional development

(.193*), planning and evaluation (.213**), and professionalism
(.172*) on the frequency subscales. Significant correlations
on the importance subscales were obtained for instructional
development (.187*) and planning and evaluation (.221**).
These findings indicate that media specialists (endorsement
#39) who were trained in audiovisual technology were more
compatible with these functions. On the basis of these find-
ings, null hypothesis four was rejected.

Hypothesis five

Null hypothesis five stated: There is no relationship
between frequency of performance, or importance of performance,
in each of six functions of media specialists and the number
of years the media specialist has worked in his or her
present building assignment.

There were positive correlations, significant at the .01
level, between number of years in building assignment and
human behavior (.160) and instructional development (.165) on
the frequency subscales. There were no significant correla-
tions between number of years in assignment and the six im-
portance subscales. However, on the importance subscales,
relationship was strongest between human behavior (.116)
and external cooperation (-.137) when correlated with number
of years in assignment.

Null hypothesis five was rejected on the evidence ob-
tained from Table 18, indicating a positive relationship be-

tween years in present assignment and the perceptions of respondents.

In summarizing the findings from Tables 18, 19, and 20, it was possible to reject three of the five hypotheses. There were significant relationships found between frequency means for four of the six functions and district size; three of the six functions and endorsement; and two of the functions and number of years in present assignment. There were significant correlations between importance of performance means for two of the functions and endorsement; and one of the functions and district size. There were no clear relationships between number of guidelines and any of the ratings on the 12 subscales. There also were no significant differences between any two groups of respondents when perceptions were stratified by location.

CHAPTER FIVE. DISCUSSION, RECOMMENDATIONS, SUMMARY

This study set out to analyze the perceptions of media specialists of their functions, and the importance of the functions to their media programs. The study also sought to relate these perceptions to five background and demographic variables associated with secondary school media specialists in Iowa. The project was deemed necessary as a conceptual base on which to construct a profile of media professionals who work in secondary schools.

Five research questions were posed on which five hypotheses were formulated. The first three hypotheses sought to test relationships between functions, and importance of functions, of media specialists and (1) extent of media center development in which the media specialist worked, (2) size of the school district in which the media specialist worked, and (3) location (AEA region) of the school in which the media specialist worked. The final two hypotheses were formulated to test relationship between the functions, and their perceived importance, and (1) level and type of training of the media specialist, and (2) the number of years the media specialist had been employed in his or her present building assignment.

Discussion

Analyses of the ratings on the 12 subscales in this study revealed that media specialists in secondary schools perceived themselves as being primarily involved in the development of client services in the media center. Similar findings were reported by Hardman (1971), the School Library Manpower Project (1975), and Fitzgibbons (1976). Hardman had defined the role of school media personnel as one of primarily working with people, while technical matters in the center were delegated as secondary. Fitzgibbons had conceptualized the professional role of school media specialists within a framework of service to others. Advancement of the profession, according to Fitzgibbons, depended on the serious commitment of those in the field to a strong service image. Daniel (1974) had linked interpersonal behavior of the media specialist to the extent of integration of the media program with the total school program.

Evidence from the present study indicated a general acceptance of the role model advocated by the above researchers. On the frequency subscales, subjects rated human behavior much higher than research, which received the lowest ratings. Subjects were also more involved in human behavior tasks than in planning and evaluation tasks, which were rated second on both subscales.

Ratings for planning and evaluation did not exceed 3.18,

but their position of second place on the subscales evi-
denced a general commitment among subjects to the develop-
ment and improvement of their programs. Moore (1976) had ob-
served that survival of school media programs appeared to be
the key issue facing media specialists in Iowa. Perhaps
the extent of involvement and the perceived importance of
program planning and evaluation, as indicated by respondents,
suggested a concern about program survival.

Frequency rating for instructional development indicated
that media specialists were performing below the "sometimes"
level in that function. However, subjects rated the function
somewhat above the "average importance" level. Professional-
ism, on the other hand, was rated 2.00 (sometimes) on the fre-
quency subscale, but was perceived as being of less importance
than instructional development. These ratings represented
the single instance in which subjects' perceptions of task
frequency failed to match their perceptions of task importance.
In all other instances there was a match between the two per-
ceptions.

Respondents were least involved in external cooperation
and research, in that order. External cooperation was rated
1.83 on the frequency subscales and research was rated a low
1.52. On the importance subscales, these two functions were
rated 2.51 and 2.28, respectively. The rather high standard
deviations from the mean ratings for these two functions in-
dicated that media specialists were involved in these

activities across a wide variety of levels.

When subscale ratings were stratified by the five classification subgroups, there were generally small differences found between the ratings. However, upon close examination, some patterns did emerge. These data were reported in Tables 13 through 17.

There was clear indication that media specialists in centers meeting fewer than 14 guidelines perceived the external cooperation function as being more important to their programs than did subjects whose centers had met 14 or more guidelines. This finding suggested that subjects in the less developed centers tended to perceive their regional media centers as a source of needed help and support for their programs. It was also reasonable to assume that media specialists who worked in centers with a wide variety of materials and services would not perceive as much need for outside help and support for their centers.

The data revealed that respondents in districts of 750 or more enrollment were more active in four of six functions. They were not more active in research and external cooperation. In these two functions, the smaller district subjects reported ratings higher than those from larger districts. This was interpreted as another indication of the efforts of respondents in small centers to insure the survival of their programs.

Media specialists with master's degrees in audiovisual technology were the most involved in all six functions. Respondents holding master's degrees solely in library science (endorsement #51) rated their performance equal to that of subjects with 30 semester hours in professional training. This finding was contrary to evidence in the literature which suggested that media specialists with master's degrees were more active in program activities than those without such degrees. More research is needed to explore the patterns of responsibilities among these two endorsement subgroups.

The literature had indicated that media specialists with library school training were often reluctant to assume responsibilities in instructional development (Gilman, 1970; Brunelle, 1975; Mugnier, 1979). There was clear evidence in the present study which reflected the observation in the literature. Endorsement #39 subjects were significantly more involved in instructional development tasks than were endorsement #51 subjects. With only 11% of the subjects in the study holding degrees in audiovisual technology, it would seem that many schools in Iowa are not receiving much support in instructional planning from their media personnel.

Data from Table 17 showed that media specialists with six or more years in their present assignments were generally more active in the functions. The exceptions were in professionalism and external cooperation. In these two functions,

subjects with less than three years in their assignments
were as active, or more active, than subjects with six or
more years in their assignments.

There were no clear patterns concerning frequency and
importance ratings when classified by Area Education Agency
regions, as evidenced in Table 15. The only notable statistic
was the 3.14 rating on the importance subscale for external
cooperation from subjects in AEA 15. The number of high
standard deviations, coupled with low response rates from
many of the regions, prevented this researcher from reaching
any conclusions about the functions when stratified by loca-
tion. It was possible that AEA boundaries cut across many
varying characteristics of schools and school personnel,
making it difficult to detect similarities.

Four of the five hypotheses were tested using correlation
analysis. Coefficients ranged from a low of -.007 between en-
dorsement and external cooperation on the importance subscales
to a high of .227 (significant at .01) between district size
and planning and evaluation on the frequency subscales. The
negative correlation between endorsement and external coopera-
tion reflected the perceptions of endorsement #51 subjects
who rated the function lowest among the subgroups on both
subscales. The high positive correlation between district
size and planning and evaluation could be indicative of the
fact that large school districts are in a better position to

encourage activities in this function. These districts can afford more materials and services, thereby necessitating frequent planning, assimilating, and evaluating the use of these materials and services. It is also indicative of the fact that a large percentage of the most highly trained personnel were concentrated in large district schools. As indicated in Table 16, these respondents tended to be more active in the planning and evaluation function than did those with less training.

There also were correlations significantly different from zero between district size and instructional development (.212**), research (.188*), and professionalism (.177*), all on the frequency subscales. District size correlated significantly with planning and evaluation (.174*) on the importance subscales. This apparent relationship between district size and these functions of media specialists was again indicative of the concentration of the best trained personnel in the large district schools. Nearly all of the media specialists who worked in centers with two professionals were from size 6 and size 7 school districts. These subjects were thus provided more time, talent, or resources needed to engage in a wider variety of activities than were subjects in single-staffed centers. Burnell (1979) had found that principals in large urban schools tended to provide more support and autonomy to their media staff then did principals in

small rural areas. This, too, could account for the significant correlations between district size and the activities of media specialists.

Endorsement correlated significantly with (1) instructional development (.193*), (2) planning and evaluation (.213**), and (3) professionalism (.173*) on the frequency subscales. Endorsement correlated significantly with instructional development (.187*) and with planning evaluation (.222**) on the importance subscales. These findings supported the conclusions by Wert (1970) and the School Library Manpower Project (1975). Those investigators had found that level of training of media specialists appeared to influence their level of involvement in media center activities. In the present study, involvement also appeared related to type of training as well as level. Those subjects with master's degrees in audiovisual technology were more involved in functions than were subjects with master's degrees in library science. As indicated earlier, the differences in ratings for instructional development were quite noticeable when ratings for these two subgroups were compared.

Though there were only five subjects in the study who held two master's degrees, their ratings in most of the functions were consistently higher than other subjects, lending more support for the significant correlation between endorsement and level of involvement in activities.

There were positive correlations between years of service in present assignment and human behavior (.160*) and instructional development (.165*) on the frequency subscales. It would appear that time is necessary to cultivate the skills needed to engage in social interactions in the media center. It might also suggest that subjects new to their buildings were still in a period of orientation to their responsibilities and had not had the opportunity to reach their potential level of participation in these functions.

Kerr (1977) had suggested that teacher acceptance of the media specialist in instructional development was an important influence on the amount of media specialist involvement in these tasks. It was possible that subjects who had worked many years in their schools had cultivated the kind of relationships with teachers which would facilitate exchange in the instructional development process.

Ratings for number of guidelines subgroups did not correlate significantly with any of the subscales, suggesting the absence of any clear relationships between these variables.

On the bases of the coefficients which were found to be significantly different from zero, hypotheses two, four, and five were rejected. There was insufficient evidence to reject hypotheses one.

The analysis of variance technique used to test null hypothesis three failed to produce any significant F ratios for differences between the ratings of location subgroups. Null

hypothesis three was rejected on the bases of the data in Table 20.

Recommendations

At a time when schools are confronted with the possibility of a sharp reduction in program services, it becomes vital that leaders in the library media field work to insure the survival of media programs in the schools. Findings from this study could aid in developing ways to safeguard that survival. Among these are:

1. Results of the study could be used as a basis for reevaluating the curricula in schools which train school media personnel. Areas in which respondents were less involved could form the nucleus around which evaluative criteria could emerge. This appears particularly important in schools which offer library science degrees.

2. Educators in schools of library science could use the findings as criteria for recruiting more students with undergraduate degrees in education to prepare for school media service. Generally, library schools have recruited most students from liberal arts backgrounds (Hannigan, 1980).

3. Directors and other professional personnel in regional media centers could use these findings to conduct in-service workshops, seminars, or formal courses in their regions. Areas of activities in which respondents showed the least involvement could form the theme of the in-service

training.

4. Cooperation between media programs should be encouraged. Directors of regional media centers could make use of the results of this study to seek new ways to support and interact with building level programs. This is vitally important in regions with very small schools.

5. Superintendents and school principals could use the findings as a basis for assignment of media specialists to certain types of schools where certain needs have been demonstrated.

Suggestions for Further Research

A number of intriguing possibilities for more research emerged from this investigation.

1. There should be further comparisons of media professionals with different levels and types of certification. Such a study could include variables pertaining to personality, school-wide responsibilities which are not directly related to the media program, and other aspects of the school setting which were not included in the present study.

2. A model should be developed and tested which could be used to facilitate building-level and regional-level program cooperation.

3. Research should be conducted to provide information concerning the assimilation of the new school media specialist into the instructional development process.

4. The study could be replicated at the elementary
school level.

Summary

The purpose of this study was to analyze the perceptions
of school media specialists of their involvement in six func-
tions, and the importance of that involvement to their pro-
grams. The study also sought to relate these perceptions to
selected background and demographic variables associated with
secondary school media personnel. Four hypotheses were tested
using correlation analysis to determine if a relationship ex-
isted between perceptions of the six functions, as held by
media specialists, and four characteristics of media special-
ists in their school settings. A fifth hypothesis was tested
using one-way analysis of variance.

The six functions which were investigated were human be-
havior, instructional development, planning and evaluation,
research, professionalism, and external cooperation. The
first five of the functions in the list were selected from
the Behavioral Requirements Analysis Checklist (SLMP, 1973).
Definitions for these functions were those used in that pub-
lication. External cooperation was defined from ideas taken
from the literature.

The five background and demographic variables were num-
ber of guidelines met by the center in which the media spe-
cialist worked, the size of the school district in which

the media specialist worked, the location (AEA region) of the media specialist's school, the endorsement held by the media specialist, and the number of years the media specialist had spent in his or her building assignment.

Subjects in the study were asked to rate the frequency with which they engaged in each of 82 tasks. They were also asked to rate the importance of each task to their programs. These ratings were then summed over designated clusters of tasks, and a mean for the cluster computed. The mean ratings were used as measures of the perceptions of the subjects.

Ratings were then broken down by the five classifications of media specialists, and comparisons between subgroup ratings were made.

Correlation analysis was used to detect relationships between the subgroup ratings and the frequency and importance subscale ratings for each of the six functions. Significant correlations, at the .01 or .05 levels, were used to reject hypotheses two, four, and five. Hypotheses one was not rejected because of insufficient evidence. Hypothesis three was not rejected on the basis of the results obtained from the one-way analysis of variance.

Major findings from the study were:

1. There was no detectable relationship between the number of guidelines met by a media center and the functions of the media specialist.

2. The size of the school district in which the media specialist worked appeared to influence the performance of the media specialist in instructional development, planning and evaluation, research, and professionalism.

3. There was a relationship between the endorsement held by the media specialist and the media specialist's involvement in instructional development, planning and evaluation, and professionalism.

4. Length of service in building assignment was related to performance in human behavior and instructional development.

5. Perceptions of subjects were not influenced by the location (AEA region) of the school in which the subjects were employed.

A more meaningful summary of the findings from this investigation could be accomplished through the development of a hypothetical profile or sketch of a typical media specialist in an Iowa secondary school.

The subject is most likely working in a relatively well-developed media center, or one which has met 14 or more of the 36 Iowa Department of Public Instruction guidelines for secondary schools. The school is likely located in a district which serves more than 750 students, and is served by AEA 11 or AEA 10 regional media centers.

The media specialist holds an endorsement in library science, and there is almost a 50% chance that the subject

holds a master's degree. The subject is also very stable and very experienced, having served in his or her present media center for six or more years.

Generally, the media specialist's involvement in media center activities is in direct relationship to the perceived importance of the activities to the media program. The subject is most involved in human behavior tasks and in planning and evaluating the media program. He or she is devoting the least amount of attention to interacting with the regional media center and to research activities in the media center. Though the subject is more active in professional growth activities, instructional development tasks are perceived as being somewhat more important. This is the only instance in which the subject deviates from the rule concerning the relationship between performance and perceived importance of tasks. In all six areas of activities, the subject is performing at levels below those of colleagues who have been trained in audiovisual technology.

The subject's perceptions of human behavior, instructional development, planning and evaluation, research, and professionalism are related to one or more of the following variables: size of the school district, level and type of training, and the number of years he or she has worked in the media center. The level of development of the media center and the AEA region have no influence on the subject's perceptions of media center tasks.

BIBLIOGRAPHY

Allen, Lawrence, and Conroy, Barbara. Social interaction skills. *Library Trends*, 1971, *20*, 78-91.

American Association of School Librarians. *Certification model for professional school media personnel*. Chicago: American Library Association, 1976.

American Association of School Librarians, and Association for Educational Communications and Technology. *Media programs: District and school*. Washington, D.C.: Authors, 1975.

Anderson, Carolyn. Role expectations of the high school librarian as perceived by librarians, principals, and teachers. (Doctoral dissertation, University of Oregon, 1970). *Dissertation Abstracts International*, 1971, *31*, 5437A. (University Microfilms No. 71-10,684).

Baughman, James. The meaning of the standards for school media programs. *School Media Quarterly*, 1973, *1*, 274-277.

Becker, Earl. An appraisal of administrative practices for the acquisition and distribution of materials in the regional instructional materials centers of Pennsylvania. (Doctoral dissertation, Lehigh University, 1965). *Dissertation Abstracts*, 1966, *26*, 6460. (University Microfilms No. 66-02,140).

Bell, Geraldine. Determining a job performance basis for the development of an individualized staff development program for school library media specialists. (Doctoral dissertation, University of Alabama, 1977). *Dissertation Abstracts International*, 1978, *39*, 1907A. (University Microfilms No. 78-18,849).

Bingham, Rebecca. Components of effective supervision at the district level. *School Media Quarterly*, 1979, *7*, 171-174.

Brunelle, Eugene. New learning, new libraries, new librarians. *Journal of Academic Librarianship*, 1975, *1*(5), 20-24.

Bucher, Katherine. Role expectations held by professional school personnel for the role of the school library media specialist. (Doctoral dissertation, Auburn University, 1976). *Dissertation Abstracts International*, 1976, *37*, 2467A. (University Microfilms No. 76-25,689).

Bundy, Mary, and Wasserman, Paul. Professionalism reconsidered. College and Research Libraries, 1968, 29, 5-26.

Burnell, Sally. Principals' perceptions of actual and ideal roles of the school media specialist. Unpublished Master's thesis, Iowa State University, 1979.

Cantor, Phyllis. Role expectations for library media services held by library media specialists, school administrators and teachers. (Doctoral dissertation, Columbia University, 1975). Dissertation Abstracts International, 1976, 36, 7707A. (University Microfilms No. 76-12,728).

Chisholm, Margaret, and Ely, Donald. Media personnel in education. Englewood Cliffs, N.J.: Prentice Hall, 1976.

Clark, Marilyn. The tasks of school media specialists: Perceptions of importance, self competence appraisal, and optimum location for learning. (Doctoral dissertation, Kansas State University, 1979). Dissertation Abstracts International, 1980, 40, 3062A. (University Microfilms No. 79-26,549).

Conant, Ralph. The Conant report: A study of the education of librarians. Cambridge, Mass.: The MIT Press, 1980.

Costin, Lela. An analysis of the tasks in school social work. Social Service Review, 1969, 43(3), 274-285.

Daniel, Evelyn. Professionalism of school librarians and media center management. In Thomas Galvin, Margaret Kimmel, and Brenda White. Excellence in school media programs. Chicago: American Library Association, 1980.

Daniel, Evelyn. The organizational position of school media centers: An analysis of the role of the school library and the school librarian. (Doctoral dissertation, University of Maryland, 1974). Dissertation Abstracts International, 1974, 35, 3783A. (University Microfilms No. 74-29,065).

Davies, Ivor. Some aspects of a theory of advice: The management of an instructional developer-client, evaluator-client relationship. Instructional Science, 1975, 3, 351-373.

Davies, Ruth. The school library media program: Instructional force for excellence (3rd ed.). New York: Bowker, 1979.

Davis, Sally. The role of the school library media director. (Doctoral dissertation, University of Wisconsin-Madison, 1975). Dissertation Abstracts International, 1976, 37, 57A. (University Microfilms No. 76-08,580).

Dyer, Esther. Cooperation in library services to children: A fifteen-year forecast of alternatives using the Delphi Technique. (Doctoral dissertation, Columbia University, 1976). Dissertation Abstracts International, 1978, 39, 1904A. (University Microfilms No. 78-81,9381).

Edwards, Ralph. The management of libraries and the professional functions of librarians. Library Quarterly, 1975, 45, 150-160.

Epstein, Laura. Helping people: The task-centered approach. St. Louis: C. V. Mosby, 1980.

Evans, G. Edward. Management techniques for librarians. New York: Academic Press, 1976.

Fitzgibbons, Shirley. The concept of service orientation: An exploratory study on the concept in relationship to the library and information services field. (Doctoral dissertation, Rutgers University, 1976). Dissertation Abstracts International, 1977, 37, 6120A. (University Microfilms No. 77-07,220).

Fitzgibbons, Shirley. Professionalism and ethical behavior: Relationship to school library media personnel. School Media Quarterly, 1980, 8(2), 82-100.

Gaver, Mary. Services of secondary school media centers. Chicago: American Library Association, 1971.

Gilman, D. A. Can instructional technology survive the joint media standards? Educational Leadership, 1970, 28, 155-157.

Goldberg, Robert. A systems approach to library program development. Metuchen, N.J.: The Scarecrow Press, 1976.

Goode, William. "Professions" and "non-professions". In Howard Vollmer and Donald Mills. Professionalization. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Greif, Esther, and Hogan, Robert. The theory and measurement of empathy. _Journal of Counseling Psychology_, 1973, _20_(3), 280-284.

Guise, Benjamin. A survey of public school library resources in Arkansas. (Doctoral dissertation, North Texas State University, 1972). _Dissertation Abstracts International_ 1973, _33_, 4444A. (University Microfilms No. 73-02,904).

Hannigan, Jane. A study in contradictions--The education of school media specialists. In Thomas Galvin, Margaret Kimmel, and Brenda White. _Excellence in school media programs_. Chicago: American Library Association, 1980.

Hannigan, Jane. Evaluation as a search for value. _School Library Journal_, 1976, _23_(1), 24-25.

Hardman, Robert. Philosophy of role and identification of critical tasks performed by educational media specialists in elementary and secondary schools of Iowa. (Doctoral dissertation, Indiana University, 1971). _Dissertation Abstracts International_, 1972, _32_, 4285A. (University Microfilms No. 72-06,707).

Hellene, Dorothy. The relationships of the behaviors of principals in the State of Washington to the development of school library/media programs. (Doctoral dissertation, University of Washington, 1973). _Dissertation Abstracts International_, 1974, _34_, 3835A. (University Microfilms No. 74-00,807).

Heller, Robert, Kohl, John, and Lusthaus, Charles. Attitudes toward regional cooperation in education. _Planning and Changing_, 1972, _3_(3), 42-53.

Ingram, Rex. Perceptions of elementary classroom teachers concerning instructional media and services provided by regional educational media centers. (Doctoral dissertation, Iowa State University, 1972). _Dissertation Abstracts International_, 1972, _33_, 1588A. (University Microfilms No. 72-26,922).

Iowa Department of Public Instruction. _Rules for Area Education Agency Media Centers_. Des Moines: Author, 1975.

Iowa Department of Public Instruction. _Plan for progress in the media center 7-12_. Des Moines: Author, 1970.

Jetter, Margaret. The roles of school library media specialist in the future: A Delphi study. (Doctoral dissertation, Michigan State University, 1972). Dissertation Abstracts International, 1973, 33, 6380A. (University Microfilms No. 73-12,746).

Kerr, Stephen. Are there instructional developers in the schools? A sociological look at the development of a profession. AV Communication Review, 1977, 25, 253-267.

Larsen, John. The role of the media specialist as perceived by himself and his administrator in the secondary schools of Utah. (Doctoral dissertation, University of Utah, 1971). Dissertation Abstracts International, 1971, 32, 1230A. (University Microfilms No. 71-24,932).

Liesner, James. The development of a planning process for media programs. School Media Quarterly, 1973, 1, 278-287.

Loertscher, David. Media center services to teachers in Indiana senior high schools 1972-1973. (Doctoral dissertation, Indiana University, 1973). Dissertation Abstracts, 1974, 34, 4300A. (University Microfilms No. 74-00,395).

Loertscher, David, and Land, Phyllis. An empirical study of media services in Indiana elementary schools. School Media Quarterly, 1975, 4(1), 8-18.

Maxwell, James. Regional-level supervision. School Media Quarterly, 1979, 7, 186-190.

McGlade, James. Principals' and library media heads' perceptions of the functions, role and characteristics of library media center heads throughout public secondary schools in selected Pennsylvania counties. (Doctoral dissertation, Southern Illinois University, 1975). Dissertation Abstracts International, 1976, 37, 75A. (University Microfilms No. 76-13,271).

McGrew, Mary, and Buckingham, Betty. Survey of the status of media service in Iowa public schools. Des Moines: Iowa Department of Public Instruction, 1978.

Meares, Paula. Analysis of tasks in school social work. Social Work, 1977, 22(3), 196-201.

Moore, Janet. Professional characteristics of educational media personnel in Iowa public schools. Unpublished Master's thesis, Iowa State University, 1976.

Mugnier, Charlotte. Views on school librarianship and library education. School Library Journal, 1979, 26(4), 19-23.

Olson, Edwin. Research in the policy process. In Irene Hoadley and Alice Clark. Quantitative methods in librarianship: Standards, research, management. Westport, Conn.: Greenwood Press, 1972.

Peterson, Gary. The learning center. Hamden, Conn.: Linnet Books, 1975.

Peterson, Ralph. A place for caring and celebration: The school media center. Chicago: American Library Association, 1979.

Pfister, Frederick. School district professional libraries in Michigan. (Doctoral dissertation, University of Michigan, 1970). Dissertation Abstracts International, 1971, 31, 4187A. (University Microfilms No. 71-04,705).

Rosenberg, Marc. Media specialists and their clients. Educational Technology, 1978, 18(2), 48-50. (a)

Rosenberg, Marc. What is the school media specialist's role? Audiovisual Instruction, 1978, 23(2), 12-13. (b)

Schaeffer, Robert. Reevaluating "meaningless" work. Personnel Administrator, 1977, 22(1), 51-53.

School Library Manpower Project. Task analysis survey instrument. Chicago: American Library Association, 1969.

School Library Manpower Project. Behavioral requirements analysis checklist. Chicago: American Library Association, 1973.

School Library Manpower Project. Evaluation of alternative curricula. Chicago: American Library Association, 1975.

Schulzetenberge, Anthony. Interests and background variables characterizing secondary school librarians who work with teachers in curriculum development and improvement of instruction. (Doctoral dissertation, University of North Dakota, 1970). Dissertation Abstracts International, 1972, 32, 7019A. (University Microfilms No. 72-16,372).

Silber, Kenneth. What field are we in anyhow? Audiovisual Instruction, 1970, 15(5), 21-24.

Stephens, E. Robert. A profile of exemplary regional educational service agencies. Planning and Changing, 1972, 3(3), 33-40.

Stroud, Janet. Evaluation of media center services by media staff, teachers, and students in Indiana middle and junior high schools. (Doctoral dissertation, Purdue University, 1976). Dissertation Abstracts International, 1977, 37, 4674A. (University Microfilms No. 77-1783).

Turner, Philip, and Martin, Nina. Factors affecting instructional development activities of selected K-12 media professionals, 1978. (ERIC ED 151 012)

Vandergrist, Kay. The teaching role of the school media specialist. Chicago: American Library Association, 1979.

Van Dreser, Roy. A survey related to job competencies of the instructional media specialist. (Doctoral dissertation, University of Nebraska, 1971). Dissertation Abstracts International, 1971, 32, 681A. (University Microfilms No. 71-19,522).

Wallington, C. J., et al. Jobs in instructional media. Washington, D.C.: Association of Educational Communications and Technology, 1971.

Walch, David, and Brumbaugh, W. Donald. Toward professionalization in the media field. School Media Quarterly, 1975, 4, 27-36.

Ward, Barbara. Behavior and performance perceived to be necessary for credentialed school librarians. (Doctoral dissertation, University of Southern California, 1978). Dissertation Abstracts International, 1979, 39, 2881A.

Wert, Lucille. Library education and high school library services. (Doctoral dissertation, University of Illinois, 1970). Dissertation Abstracts International, 1971, 1971, 31, 2949A. (University Microfilms No. 70-21,083).

Wood, Johanna. Role of media specialists in the curriculum process. School Library Journal, 1976, 23(1), 20-21.

Yarmolinsky, Adam. What future for the professional in American society? Daedalus, 1978, 107, 159-174.

ACKNOWLEDGMENTS

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured and that informed consent was obtained by appropriate procedures.

I entered my graduate program and survived its challenge with the help and support of many people. Special thanks go to the members of my graduate committee who guided and helped me through this new adventure. I am particularly indebted to Dr. Roger Volker who sat patiently with me for many hours as I sorted through my thoughts and ideas, helping me to choose the best and to discard the useless. I am also indebted to Dr. Lynn Glass who chaired my program in a sensitive and thoughtful manner, and who taught me how to apply the principles of educational research.

Sincere gratitude is owed to Dr. Betty Jo Buckingham and her staff at the Iowa Department of Public Instruction. They provided immeasureable assistance in the initial stages of the research.

My deepest appreciation goes to the members of my

family, for it was they who sustained me throughout this endeavor. I especially thank my mother and father, Mr. and Mrs. Robert L. McKinney, who never faltered in their encouragement and support.

APPENDIX

Table A1. Intercorrelation coefficients for classification subgroups

	No. of guidelines	District size	Endorsement	No. of yrs. in present assignment
Number of guidelines	1.000	.1903*	.2101**	.0290
District size		1.000	.3885**	.2051*
Endorsement			1.000	.0645
Number of years in present assignment				1.000

*Significant at .05.

**Significant at .01.

Table A2. Intercorrelation coefficients for frequency and importance subscales

	Human behavior	Instr. dev.	Planning & eval.	Research	Prof.	External coop.
Human behavior	.6269	.4388	.4042	.2783	.3327	.3096
Instr. dev.	.5304	.6939	.5651	.5172	.4972	.4910
Planning & eval.	.4662	.4877	.7029	.4902	.5009	.4580
Research	.3635	.4193	.4616	.6638	.3650	.3789
Professionalism	.4625	.4500	.4836	.4401	.6817	.5332
External coop.	.3105	.3146	.3448	.2156**	.3894	.7341

*Significant at .01; all other coefficients significant at .001.

Table A3. Intercorrelation coefficients for frequency subscales[a]

	Human behavior	Instr. dev.	Planning & eval.	Research	Prof.	External coop.
Human behavior	1.000	.7202	.5991	.4948	.5762	.4210
Instr. dev.		1.000	.7153	.7057	.6701	.5201
Planning & eval.			1.000	.6868	.6613	.5690
Research				1.000	.6417	.5325
Professionalism					1.000	.6184
External coop.						1.000

[a]All coefficients significant at .001.

Table A4. Intercorrelation coefficients for importance subscales[a]

	Human behavior	Instr. dev.	Planning & eval.	Research	Prof.	External coop.
Human behavior	1.000	.5821	.5956	.4142	.5495	.4540
Instr. dev.		1.000	.6484	.5035	.5860	.5295
Planning & eval.			1.000	.6668	.6989	.4939
Research				1.000	.4939	.3433
Professionalism					1.000	.5492
External coop.						1.000

[a]All coefficients significant at .001.

Table A5.   Distribution of memberships in 10 professional
            associations (n÷155)

Association	Present memberships	Percent	Past memberships
Iowa Library Association (ILA)	8	5.1	17
Iowa Educational Media Association (IEMA)	101	65.1	20
American Association of School Librarians (AASL)	16	10.3	15
Association for Educational Communication and Tech. (AECT)	2	1.3	6
American Federation of Teachers (AFT)	4	2.6	1
National Education Association (NEA)	132	85.2	11
Association for Supervision and Curriculum Development (ASCD)	1	0.6	0
Iowa State Education Association (ISEA)	128	82.6	14
American Library Association (ALA)	22	14.2	18
Iowa Curriculum and Instruction Conference (IC)[2]	2	1.3	1

Table A6. Distribution of professional memberships in library media associa-
tions by endorsement (n÷155)

Association	Endorsement									
	#86		#34		#51		#39		#39±#51	
	P1[a]	P2[b]	P1	P2	P1	P2	P1	P2	P1	P2
Iowa Library Associa- tion (ILA)	0	1	5	10	2	6	0	0	1	0
Iowa Educational Media Association (IEMA)	4	3	45	9	38	7	9	1	5	0
American Association of School Librarians (AASL)	0	1	6	7	8	7	2	0	0	0
Association for Educa- tional Communications and Technology (AECT)	0	1	0	2	0	1	2	2	0	0
American Library Association (ALA)	0	0	10	8	10	10	2	0	0	0

[a]P1 = present membership.

[b]P2 = past membership.

MERGED AREA BOUNDARIES FOR A. E. A.

A map of Iowa counties showing merged area boundaries for A.E.A., with regions labeled:

- IV — Sioux Center
- III — Cylinder
- II — Clear Lake
- Elkader (IX area)
- V — Fort Dodge
- VII — Cedar Falls
- XII — Sioux City
- VI — Marshalltown
- X — Cedar Rapids
- IX — Davenport
- XI — Ankeny
- XIII — Council Bluffs
- XIV — Creston
- XV — Ottumwa
- XVI — Fort Madison