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LIBRARY MEDIA CENTERS IN PUBLIC DAY SCHOOLS FOR THE DEAF

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**LIBRARY MEDIA CENTERS IN PUBLIC DAY SCHOOLS
FOR THE DEAF**

**BY
WILLIAM A. CARTER**

A DISSERTATION

**Presented to the Faculty of the Graduate College
of the University of Oklahoma**

In partial fulfillment of the requirement

for the Degree of

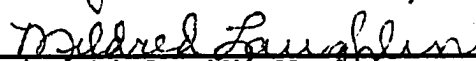
DOCTOR OF PHILOSOPHY

**September 1982
Norman, Oklahoma**

**LIBRARY MEDIA CENTERS IN PUBLIC DAY SCHOOLS
FOR THE DEAF**

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LIBRARY MEDIA CENTERS IN PUBLIC DAY SCHOOLS FOR THE DEAF

Chapter I

Introduction

The education of a child is an involved and time consuming process. This is especially true for the hearing impaired. Teachers, using books, nonprint materials, and equipment are considered the major conventional methods for student learning. A significant question for those who work with the hearing impaired is how do schools for the hearing impaired provide these conventional methods for their students?

One generally accepted way is to maintain library media centers in schools. As stated by Martin and Sargent (1980):

The library media center contributes to the educational growth of students through the learning experiences offered in its central facility and through the broad range of services that enhance and expand these experiences by carrying them beyond the physical boundaries of the center itself into other areas of the school and community. (p. 15)

Further support for having library media centers in schools is provided by the American Library Association (ALA) and the Association for Educational Communications and Technology (AECT) in their publication Media Programs: District and School (1975):

Media programs which reflect applications of educational technology, communication theory, and library and information science contribute at every level, offering essential processes, functions, and resources to accomplish the purpose of the school. (p. 1)

Functions

One way to describe the effect of the library media center on the school environment is to look at its several functions. The library media center can and should function as a multimedia resource center, communications center, learning laboratory, recreational center, teaching center, production center, a resource for students' personal and social development, and a consultation center.

Multimedia resource center is that function of the library media center that should provide a variety of instructional resources for both students and teachers. The organization of these materials should be designed to allow maximum use by both groups of users. If materials are not accessible, and therefore not used, then the impact of the library media center on the school's mission will likely not be significant.

The attainment of communication skills is desired for all learners. The library media center should function as a communication center for learners and teachers, not only through printed, visual, or aural symbols, but also between and among individuals who make up the school community. Communication between the learner and resources of the library media center leads to the library media center being used as a learning laboratory. Students should be able to seek out facts and broaden their intellectual capabilities through utilization of the materials in the library media center through reading, viewing, listening, or producing materials. Provisions should be made for this to be accomplished by learners working individually, in small groups, or in a complete class.

Providing recreation, in this case for the mind, is a function of the library media center program that is often overlooked or misunderstood. Students

apparently doing nothing in the center should not indicate to the observer that nothing is happening. The student may be daydreaming or simply thinking, something that should not be discouraged. Browsing, listening to records or tapes, and playing games are examples of students using the center for recreational purposes and developing, in the process, desirable leisure habits.

The library media center can also be viewed as a teaching center because the library media center staff should instruct students in locating and using materials, research skills, and operation of media equipment. The center can also be used as a place for one-on-one tutorial work and independent study units.

Often the library media center provides the equipment, facilities, and instruction necessary for teachers and students to produce items useful for both teaching and learning, thus leading to the library media center being a materials production center. Materials production can be a means of motivating the learner, those who are gifted as well as the average and the slow learning student.

Providing for the students' personal and social development is another function of the library media center. In this capacity the library media center provides the opportunity for students to become self-directed learners and more confident individuals. Students can and should learn to share and work with others while understanding the rights of others.

As a consultation center, the library media center and its staff should assist teachers and students with development of their ideas and understanding of facts. For teachers, as an example, ideas can include designing learning packages, motivating slow learners, and finding an appropriate resource person

and/or materials for a unit of instruction. For students, consultation can include such things as how to write a report, finding sources of materials, and/or how to make a slide-tape program (Martin and Sargent, 1980).

The functions of a library media center described above are examples of how the library media center should support the overall educational mission provided by the school. These functions also illustrate that the modern library media center is more than just a place to keep and read books. The attributes of a good, fully functional library media center should be as important and should have as much impact for library media centers in schools for the deaf and hearing impaired as in conventional school settings.

Standards

The professional literature in library and educational technology contains several editions of standards and guidelines for library media centers and their operation. The significance of standards for an organization is supported by Gardner (1961) when he stated that:

Standards are contagious. They spread throughout an organization, a group, or a society. If an organization or group cherishes high standards, the behavior of those who enter it is inevitably influenced. (p. 74)

Standards according to Fast (1976, p. 121) "are valuable as professional goals. . . because they present goals of excellence for the learner." Clearly, both the goal of and the result of standards or guidelines in education is to improve the potential for learning by the student. Ideally these goals and results of standards/guidelines should include all students, regardless of their background, interests, or abilities (ALA/AECT, 1975).

Standards and guidelines established for public school library media centers have been more prevalent than for other, more specialized educational

institutions such as schools for the hearing impaired. As early as 1920, the American Library Association adopted the Secondary School Library Standards and, in 1925, the Elementary School Library Standards. From that time these early Standards have been revised and updated to accommodate the changes which have occurred in the schools. The Standards were revised in 1945, 1960, 1969, with the latest revision in 1975 resulting in the publication of Media Programs: District and School by the American Library Associations and the Association for Educational Communications and Technology. The 1975 standards are generally known as the Guidelines (Davies, 1979).

Standards for the library media centers in public schools for the hearing impaired has not had the same history of revision and updating as those outlined above for public school library media centers. From 1817 with the founding of the American School for the Deaf, (the first public school for the deaf in the United States - American Annals of the Deaf, 1968), until today only one set of standards has been produced for library media centers in public schools for the deaf and hearing impaired. These standards, Standards for Library-Media Centers in Schools for the Deaf, were published in 1967 by the American Instructors of the Deaf. This publication was based on an earlier status study of libraries in schools for the deaf and the Standards for School Library Programs published by the American Library Association in 1960 (Cory, 1967).

From that time (1960) forward, a concern was felt by administrators and librarians in the field of the education of the deaf as to how schools for the deaf might be measuring up to the Standards recommended for schools for the hearing. In addition to this concern, those who gave serious thought to the matter of library services in schools for the deaf had grave doubts as to the adequacy of standards for regular schools in schools which were faced with special communication and learning problems of deaf students. (Cory, 1966 Introduction)

From this concern and an apparent major lack of information, a status study was conducted in 1965 of thirty schools for the deaf. The schools studied included seventeen public residential, five private residential, and eight public day schools (Cory, 1966). From the results of this study, the 1967 Standards for Library-Media Centers in Schools for the Deaf was formulated.

The 1967 Standards cover five areas of the library media center program: (1) personnel, (2) collections, (3) quarters (facilities), (4) equipment, and (5) annual expenditures. As noted earlier, the Standards were published in 1967 and have not been revised to this date. It should be noted that the primary concern of these 1967 Standards were with residential schools for the deaf, because that kind of school was most prevalent at that time, and not with library media centers in public day schools for the deaf.

Need for the Study

A major concern among library media professionals working with the deaf and hearing impaired is: (1) Are the 1967 Standards still current; and, (2) How well do they apply outside of public residential schools for the deaf? This study has been developed to respond to the questions above and to fill an apparent void in research on library media centers in public day schools for the deaf and hearing impaired.

Statement of the Problem

How might the Standards for Library-Media Centers in Schools for the Deaf published in 1967, be inappropriate as standards for the current status of library media centers in public day schools for the deaf in the United States?

Limitations of the Study

The study will survey only public day schools for the deaf and hearing impaired in the United States as they are listed in the April, 1981 and April, 1982 issues of the American Annals of the Deaf.

The questionnaire will assess the present status of library media centers in public day schools for the deaf and hearing impaired.

The data reported will be given as reported by the respondents.

Definition of Terms

Public Day School for the Deaf: public supported schools for the deaf with day facilities only (American Annals of the Deaf, 1982).

Hearing Impaired: a person with a hearing disability ranging from mild to profound. The terms deaf and hard of hearing are subsets of hearing impaired (Bess and McConnell, 1981). Throughout this study hearing impaired is used as the primary description of learners who are classified as deaf or hard of hearing.

Deaf: a person "whose hearing disability precludes successful processing of linguistic information through audition, with or without a hearing aid" (Bess and McConnell, 1981, p. 141).

Hard of Hearing: a person that "generally with the use of a hearing aid, has residual hearing sufficient to enable successful processing of linguistic information through audition" (Bess and McConnell, 1981, p. 141).

Library Media Center: "A department, or a place set aside to contain books and other printed materials and audiovisual materials for reading, viewing and listening, for study, for reference, or recreational purposes" (Cory, 1967, p. 3).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The intent of this study is to determine how might the Standards for Library-Media Centers in Schools for the Deaf are inappropriate as standards for the current status of library media centers in public day schools for the deaf in the United States. The review of the literature is organized in the following divisions: (1) a general introduction to education of the hearing impaired; (2) different aspects of the utilization of educational media with the hearing impaired; (3) a look at the education of the hearing impaired who have special needs; (4) related studies of library media centers with the hearing impaired; and (5) the development of the Standards for Library-Media Centers for the Deaf and the report of a related study comparing the Standards with actual school situations.

Education of the Deaf and Hearing Impaired

The deaf and hearing impaired in the United States have not had a long history of receiving quality education. In many cases these individuals received no education and thus were excluded from much of society. However, through the eighteenth and nineteenth centuries schools for the deaf and hearing impaired began to flourish. Credit for the early establishment of education for the deaf and hearing impaired in the United states is given to Thomas Hopkins

Gallaudet who established the first school for the hearing impaired in Hartford, Connecticut in 1817. The twentieth century was the beginning of more advanced technological developments for the hearing impaired. Instruments for the testing of hearing and electronic amplification of sound greatly improved the hearing impaired student's ability to acquire an education. From these advances in technology it was learned that most hearing impaired individuals have some residual hearing which was thus aided by electronic amplification (Bender, 1981).

Although changes were taking place in the education of the hearing impaired during the 20th century, most of these changes had been of a gradual nature. However, beginning in the 1960's changes within hearing impaired education intensified greatly. Most of this change was based on the prevailing social climate of the early 1960's when demands for changes and accountability ultimately affected many aspects of our society including education of the hearing impaired. Concerns were brought forth by hearing impaired individuals, parents of hearing impaired children, and professionals in the area of hearing impaired education. Concerns were expressed in such areas as academic achievement, career opportunities, and community involvement for the hearing impaired. Some reasons put forth for the existence of the above conditions were:

delayed identification of hearing impairment, ineffective prevailing modes of communication in schools, inadequately prepared teachers and other professionals, neglect of residual hearing, inordinate pupil-teacher ratio, unsatisfactory organization and administrative arrangements, employer discrimination of handicapped persons, lack of applied research, and public ignorance and indifference to deaf people reflected in meager community support (Silverman, 1981, p. 169).

The federal government began enacting laws supporting the handicapped which culminated in Public Law 94-142, the Education of All Handicapped

Children Act passed in 1975 (Silverman, 1981). For the hearing impaired student the law "guarantees a free and appropriate public education to every hearing impaired child, age 3 to 21, whose handicap requires it" (Bess and McConnel, 1981, p. 232). Thus the law requires an education for the hearing impaired but this education should be based on the student's mental ability and not their disability. Although the academic ability of the hearing impaired student may not be on the same level as with other "normal" students of the same age, the deafness in itself does not imply impaired intellectual ability (Opocensky, 1975). This is further supported by Stepp (1970) when he stated that:

The secret weapon in the education of the acoustically handicapped is the student himself (herself). . . He (she) should be allowed to succeed or fail on the basis of his (her) mental ability and not because of his (her) hearing deficiency. (p. 246)

Educational Media and the Hearing Impaired

The use of educational media is generally thought of as being mostly a visual form of communication which makes its use an important aspect in the educational development of the hearing impaired student. With the loss or severe retardation of one of the human senses, the other senses of the body take on an increased capacity. The visual capacity for the hearing impaired learner must be exploited in such a way as to produce a quality learning environment. In dealing with visual perception Wooden (1966) writes:

Visual perception is often one of the most important factors in the hierarchy of experience leading from sensation to conceptualization, especially for the deaf child. Thus it is particularly important for him (her) to learn to recognize whatever is in his (her) presence and how to make interpretations of it in keeping with his (her) age. (p. 740).

Using educational media with the hearing impaired student allows the student to exercise a multi-sensory approach to learning and thus the teacher of the hearing impaired can/should select a medium with attributes that fit the

needs of the learner. In dealing with media attributes Salomon (1979) suggests that:

The classes of media attributes that have the potential of affecting learning cut across the various media. Thus all media convey contents; the contents are structured and coded by sometimes shared and sometimes medium-specific symbol systems. They all use technologies for the gathering, encoding, sorting and they are associated with different situations in which they are used. (p. 14).

Extending this idea of media attributes, Meierhenry (1980) suggests that learner differences also play a major part in media utilization by the hearing impaired. He writes:

Learners differ considerably in many ways, such as the manner in which they process information (cognitive styles) and differences in the dominance of one brain lobe over the other (hemispheric specialization). It is my contention therefore, that educators of the future will need to be more familiar with differences among learner characteristics, including the hard of hearing, and the ways in which differences impinge upon both types of medium selected and its design. (p. 631)

Since the hearing impaired student relies heavily on visual perception for learning, the areas of instructional and educational television play a substantial part in the overall education of the hearing impaired. Although the hearing impaired student cannot receive most or all of the audio portion of the television medium this problem can be overcome by captioning. Many hearing impaired students have had new doors opened for learning opportunities because of this technological process.

Reading is an area in which most hearing impaired students are deficient which leads to a major problem with captioning. One identified method to overcome the reading problem of many hearing impaired persons is to caption verbatim all information within the program while other researchers stress using edited captioning to compensate for the lower language development. Braverman and Cronin (1978) suggest using both methods to the benefit of the

student. If the program is instructional in nature then it is edited since the student must be able to understand the message. However, if the program is for entertainment then it is captioned verbatim. Caldwell (1981) suggests that this verbatim captioning might aid the hearing impaired by forcing them to explore and expand their vocabulary and thus increase their reading ability.

An extension of this idea of captioning is to add sign language inserts to existing videotape programs to aid hearing impaired students. This format has been well received by hearing impaired students and provides better communication in the classroom (Jones, Murphy, and Perrin, 1979).

Another use of videotape with the hearing impaired is as an adjunct to field trips. Solomon and Taylor (1980) discuss a method they use where a videotape is made of the place to be visited prior to the field trip to give the students a basic understanding of what they would see. During the field trip another videotape was made of the students which was shown to the students after returning to school thus providing immediate reinforcement. The students would construct a picture book of the event with the students gaining experience in writing, illustrating, and remembering details.

Videotape is also being utilized to accelerate language development in hearing impaired students. Kreis (1979) outlines a program for language development based on the Apple Tree language curriculum. Videotapes were made on location to support the language curriculum. The test results strongly supported the use of videotape over non-use in language development.

An adjunct to the use of video for the hearing impaired has been the videodisc. Recent experimentation with the videodisc has shown that it:

Can carry all other media forms and provide two-channel audio,
slow motion forward and reverse, and random access of any of the

54,000 individual frames per disc side. The videodisc can also present interactive and CAI-type instruction with the added benefit of still and motion pictures (Propp, Nugent, Nugent, and Stone, 1979, p. 654).

Teacher evaluation of the videodisc was positive in that most liked the multi-media capability available on the disc and the control of the presentation in which the teacher can stop, slow down, or sequence materials for students based on their individual needs (Propp, Nugent, and Stone, 1980).

The use of films with the hearing impaired is another example of a highly visual form of media. In the early part of the twentieth century, the hearing impaired were enjoying films for recreational purposes like most other individuals of that time with the major reason being that the films were silent and were captioned for the audience. However, with the advent of talking films in the late 1920's the hearing impaired audience could no longer comprehend the action without the captions thus films were no longer of value for recreational or educational purposes (Boatner, 1981; Parlato, 1980).

In the late 1950's, Captioned Films for the Deaf (CFD) began to offer captioned films to the hearing impaired for recreational and educational use (Parlato, 1980). Captioned films and non-verbal films today are widely accepted within the educational environment of the hearing impaired. Captioned and non-verbal films can be used effectively in such subject areas as minority understanding, mental and physical health, ecology, the concept of deafness, as well as the more traditional content areas (Parlato, 1976).

Both for normal and hearing impaired students, microcomputers are a recent innovation within education. The effect of the microcomputer on instruction has been significant and that effect is increasing in impact daily. Although computers have in the past been used with hearing impaired students, they were the large main frame computers and were not readily available to all

students. Now, however, the low cost of microcomputers makes computer technology available for most hearing impaired students.

Many schools for the hearing impaired are now actively using microcomputers for both administrative and academic purposes. A good beginning for teachers and administrators in the use of microcomputers is a strong preservice and inservice training program with hands-on experience. This training allows the individuals involved to see how the microcomputer can be utilized and to start using commercially-developed and locally-developed programs. With assistance most teachers and administrators can develop their own programs to fit their particular needs (Arcanin and Zawolkow, 1980).

In one school for the hearing impaired, Apple computers were used for a wide variety of instructional and administrative duties. By using the APPLEPOST address label program, the school could print the labels for parent mailings in two hours where it previously took two days. Apples were also used to store research information on all of the students within the school. This data storage capacity of the microcomputer is especially useful in maintaining data on students with special needs. Apple computers were used in the academic areas of teaching computer literacy courses and courses in programming in BASIC. The computers were also used with problem students who related better with the machines than with people (Comden, 1981).

The Hearing Impaired with Special Needs

Individuals who deviate from the norm generally are not completely accepted by society. This is true for the hearing impaired student. But what about those students who are hearing impaired and also have other special needs? Although deafness itself is a handicap, hearing impaired individuals sometimes have other handicaps or specific needs. Stepp (1981) states:

It becomes even more obvious that deaf students cannot be categorized by their deafness and taught in a routine way. In fact, the deaf represent a microcosm of the population as a whole. They vary in intelligence, in coordination and dexterity, in special talents, and in presence or absence of additional handicaps. All of these factors have a bearing on learning achievement and must be taken into consideration in planning for deaf students. (p. 570)

Planning a program for the gifted hearing impaired student must begin with identifying those students. However, Maker (1981) suggest that "when searching for indicators of special ability or talent in children with disabilities, one must realize that the sensory impairment itself, as well as the lack of experience resulting from the disability, can both affect the child's expression of talent" (p. 633). Characteristics of gifted hearing impaired students within different areas such as visual and performing arts, dramatics, decision-making ability, leadership ability, and planning ability, have been formulated to assist the teacher in finding gifted students (Maker).

The use of educational media with the hearing impaired gifted has been shown to be effective. The use of such items as filmstrips, overhead projectors, films, and audio tapes (Lieding, 1981) as well as the more advanced media such as microcomputers are used with the gifted to enhance their learning environment. However, flexibility must be the key in developing and using educational media with the hearing impaired gifted. The media must also:

Assist with vocabulary development, encourage development of language, critical thinking, and evaluative skills. It should be highly interactive with the opportunity for gifted students to produce their own materials (Fleury, MacNeil, and Pflaum, 1981, p. 720).

Just as programs for the hearing impaired/gifted are beginning to gain national prominence, so are programs for hearing impaired students with other handicaps. One area that is receiving more attention is the education of the deaf-blind of which communication is an integral part of the educational process. The teacher should utilize any residual vision the student may have

when selecting media for class use. The media in this case can be films, filmstrips, or any other highly visual item that would help the student. Large print or print magnification should be available for those with residual vision and Braille materials for those totally blind. These materials could include Braille writers, Braille calculators, or raised line drawing kits (Bishop, 1981). Computers can also be used with the deaf-blind through a Braille terminal which allows two-way interaction between the student and the computer. The options for such an interaction include programming, computer-aided instruction, and national news that has been put into the computer. The computer can also be used to produce Braille copies of textbooks for students (Torr, 1979).

Hearing impaired students with developmental disabilities can also benefit from educational media use. With such a wide diversity among students in relation to disability, learning styles, language development, and thinking skills, educational media can effectively aid the teacher in facilitating the individual learning of the student. Much of the educational media used with this group of hearing impaired students would be teacher made to allow for the individual differences of the students. Such items as photographic story books, wall charts, videotapes, 8mm films, and 35mm slides can effectively be used with hearing impaired students who are developmentally disabled (Dierksen and Peters, 1981; Evans, 1981).

Library Media Centers

The library media center is responsible for providing resources and materials to meet the needs of its users. Providing for these needs is important for the hearing impaired students since many of the channels of receiving

information are cut off by the handicap. Coupled with the usual language retardation of most hearing impaired individuals and one can see the need for a well integrated collection of print and non-print materials (Carter, 1982; Metcalf, 1979).

For the hearing impaired the visual sense is the usual mode for learning and communicating. However, having vision leads to a major problem for communication since "the deaf have eyes to see—and therefore to read—the special communication needs of this group remain hidden" (Kemp, 1980, p. 7).

In selecting appropriate materials for the hearing impaired the needs of the students must be identified to promote learning and communication. The American Library Association (1980) suggest that some appropriate materials to be used with the hearing impaired are:

Captioned films, filmstrips, videotapes, and other visual media; sign language books; signed films, filmstrips, videotapes; visually explicit materials, materials with easy vocabulary and uncomplicated sentence structure; sensory media; materials with repetition and reinforcement. (p. 2)

To assist hearing impaired students in developing good reading habits and visual literacy, the library media specialist can use storytelling or storytime activities that are supported with highly visual materials. Picture books are an excellent resource for storytelling but other visual mediums can also be used to support printed materials. Such media as flannel boards, slides, films, filmstrips, videotapes, posters, and pictures have been found to be effective as an adjunct to storytelling by increasing the level of understanding for hearing impaired students (Batt, 1976; Marshall, 1981; Metcalf, 1979).

The library media center provides much in the way of materials and resources for the hearing impaired. However, to be effective, the students must know how to use the library media center. Library instruction should

begin with students at an early age. For the instruction to be effective it must be meaningful. The students should be able to find materials and resources and know how to use them. Teachers of the students should know what resources are available in the center and the resources should correlate with the curriculum of the school (Metcalf, 1979; Meyers, 1979). The effectiveness of the library media center is directly related to how effectively it is utilized by the students and teachers.

Standards-Phase I and Phase II

The American Library Association published the Standards for School Library Programs in 1960. After these Standards were published concern among administrators and librarians in education of the hearing impaired surfaced as to the conditions of libraries in schools for the hearing impaired in relation to the new Standards. Concern was also expressed as to the adequacy of the 1960 Standards as applied to libraries in schools for the hearing impaired. From these concerns came the idea of establishing a set of standards for libraries in schools for the hearing impaired. Thus, a status study was proposed to find out what was available in the way of materials and resources in libraries in schools for the hearing impaired.

The Convention of American Instructors of the Deaf and the Captioned Film Office sponsored the status study under the directorship of Patricia B. Cory, Director of Library Services and Visual Education at the Lexington School for the Deaf in New York City. Dr. Frances Henne of Columbia University and Miss Mae Graham of the Maryland State Department of Education were consultants to the project. An advisory council of educators of the hearing impaired was also formed to assist in the project (Cory, 1966; Opocensky, 1975).

The results of the status study, with recommendations for the consideration of standards, were published as Report On Phase I-School Library Programs In Schools For The Deaf. In 1966 the American Annals of the Deaf published a summary of the results of the status study. Thirty schools for the deaf were visited, representing public residential, private residential, and public day schools chosen by geographical distribution. Half of these schools had a student population of over 250 and half less than 250 students.

1. None of the schools met the American Library Association Standards in every area.
2. One qualified in all but quarters (facilities).
3. A few schools came close to meeting the lower ranges of the American Library Association Standards.
4. Ten Schools had professionally trained personnel offering enough in the way of services and program to form what might be called "superior" library services.

Personnel

1. Eighteen schools had a staff member assigned; two schools had two librarians each.
2. Eleven persons were graduates of library schools or an undergraduate department of library science. Four of these eleven were deaf, nine were trained teachers of the deaf, and five had training in both areas.
3. Twelve schools had no librarians.
4. Quality of personnel assigned in most schools fell far short of the American Library Association Standards.
5. Schools with librarians were providing supplementary reference, study, and recreational materials to the degree budgets permitted.

Library Quarters (Facilities) and Equipment

1. Meeting or exceeding the American Library Association Standards for floor space and seating capacity were: three newly remodeled libraries, two situated in new buildings, and one housed in a separate building.
2. All others were crowded and in need of additional floor and shelving space as well as greater seating capacities.
3. Only one school reported any sizeable amount of equipment for educational purposes.

Expenditures

1. Seven schools were meeting minimal American Library Association Standards; two exceeded the Standards.
2. Expenditures needed to be increased drastically to bring collections up to sizes where they could offer variety of choice and stimulation to deaf students.

Collections

1. Two schools had no library book collections; two could not estimate the size of their collections; nineteen fell below the lower range of the recommended size; seven met the quantitative standards and two of these exceeded the upper range.
2. New and up-to-date materials were needed almost everywhere.
3. Motion picture and filmstrip collections in public residential schools were excellent in quality and quantity.

Library Programs

1. Ten schools consistently at the top in every area reported providing the most library services and activities for students and faculty.
2. Schools without librarians, with part time, or untrained staff served much as old-fashioned study halls. (pp. 695-699)

As seen from these results the conditions of most libraries in schools for the hearing impaired were not adequate to meet the needs of students or faculty. Darling (1967) states, "If school media programs for the hearing have been a weak and sickly nutrient for the growth of learning, then media services in schools for the deaf can hardly be considered support at all" (p. 712).

The need for change was evident and the Captioned Films Office funded a second study to develop appropriate standards for library media centers in schools for the hearing impaired. From this second study would come the Standards For Library-Media Centers In Schools For The Deaf: A Handbook For The Development Of Library-Media Programs published in 1967 (Opocensky, 1975).

Mrs. Patricia Cory remained as director of Phase II, Dr. Frances Henne and Mrs. Mae Graham continued as consultants, and a second advisory committee was added. Richard L. Darling joined the consultants for the second phase.

The 1967 Standards were an outgrowth of the need for change and the need to catch-up with the educational innovations of the time. For this reason the Standards exceeded the 1960 American Library Association Standards for hearing students. In an address in 1967, Darling stated that "in order to accomplish the same educational goals, media services for the deaf need to be three times as extensive as those for the hearing" (p. 712).

Library media centers according to the 1967 Standards:

Would select, acquire, process, and administer all types of informational, reference, and recreational materials and provide guidance in their use by faculties and students. In addition to being responsible for the collections of all materials, the staffs of such centers would also be responsible for program, the center's quarters (facilities) and equipment, and control and disbursement of the annual expenditure (Cory, 1967, p. 4).

With this purpose in mind the 1967 Standards became part of the growing body of literature concerned with library media centers in schools for the hearing impaired.

In 1975, a study was undertaken to determine if library media centers in public residential schools for the deaf were meeting those criteria as published in the 1967 Standards (Opocensky, 1975). Opocensky was trying to determine the effectiveness of the Standards since they had not been updated since being published.

The author developed a survey based on the Standards and mailed it to sixty-three public residential schools for the deaf with a return of fifty usable surveys. The survey covered the areas of facilities, personnel, program and services, collections, and expenditures. The results for the different areas are as follows:

Facilities

1. A common catalog was in use or being developed by more than half the schools.
2. The main quarters (facilities) of the library media centers were considered "adequate" or above by nearly two-thirds of the respondents, in spite of the fact that only six of the fifty schools met or exceeded the recommendations of the Standards.
3. Separate library media centers for different age groups were found in some of the schools but these appeared to be largely book collections housed in age-level departments.
4. Commonly missing from all areas was provisions for group amplification.
5. The adequacy of non-print facilities was not judged as highly as the main library quarters. Study carrels were not considered necessary in most of the library media centers.

6. Overall, facilities appeared to be in a state of flux with many schools remodeling, building, or settling into new library media centers.

Personnel

1. The personnel serving the library media centers were generally well-qualified. One-half of the schools met or exceeded the recommendations of the Standards for staff members needed to provide adequate services.
2. With half of the schools not meeting the recommendations of the Standards for number of personnel, many of the persons performed other duties such as clerical and maintenance tasks.
3. Persons considered professionals were responsible for selection, acquisition, cataloging, improvement of services and many public relation contacts but budgets were usually handled by administrators or business offices.

Programs and Services

1. None of the schools surveyed keep the facilities open for evening or weekend use on a regular basis.
2. Most schools offered individualized programs and indicated providing more services than were listed in the Standards.

Collections

1. A large majority of the schools served teachers-in-service training but professional collections were minimal.
2. Professional periodicals/journals were held in the numbers suggested in the Standards, however, vertical file materials were lacking.
3. Book collections fell short of the recommended 6,000 to 10,000 titles.
4. Other print materials in the student collection fell short of the Standards.

5. Thirty-one library media centers had six hundred or more captioned films while other schools have films available on loan from depository locations. Nearly three-fourths of the schools had single concept 8mm films.
6. Filmstrips were plentiful with all schools.
7. Nine schools reported not having videotape equipment although almost half of the schools did not provide the information needed.
8. Five schools had invested in video cassette equipment.
9. A large number of schools reported having collections of transparencies.
10. Microfilm was not available nor needed in the library media centers according to the respondents.
11. Five schools reported having audio materials.
12. A need was indicated for selection guides with materials appropriate for deaf students.
13. Most of the equipment for production was located in the library media center.
14. Photographic equipment was in good supply with nearly all of the schools reporting at least one to five of each type of camera recommended.
15. Opaque projectors were not prevalent in many of the schools.
16. Overhead projectors were reported in liberal quantities both in classrooms and media centers.
17. Microfilm readers and tachistoscopes were in only a few schools.
18. Other projection equipment such as screens, television receivers, filmstrip projectors, and overhead projectors were found in nearly every classroom in addition to the library media center.
19. Half of the schools did not report having audio flash card systems such as Language Master.

Expenditures

1. Adjusting the cost of living increases, only three of the larger schools met or exceeded the dollar amount suggested.
2. One-quarter to one-half of the directors could not state dollar amounts for expenditures in the three areas reported.
3. The marked difference between the dollars recommended in the Standards and the degree of adequacy of expenditures expressed by the respondents was considered significant.
4. Fewer than one-fifth of the schools met or exceeded the minimum recommendations of the Standards in any of the areas (Opocensky, 1975, pp. 210-217).

To summarize the results of this study "the Library-Media Centers in the public residential schools for the deaf responding to this survey are not equipped with facilities, collections, personnel, equipment, or budget to serve the educational program to the degree anticipated by the authors of the 1967 Standards" (Opocensky, 1975, pp. 217-218).

CHAPTER III

DESIGN AND METHODOLOGY

This study was conducted to determine if the Standards For Library-Media Centers In Schools For The Deaf, published in 1967, are still current for library media centers in public day schools for the deaf. The results of the study will indicate if the current status of library media centers meet, exceed, or fail to meet the 1967 Standards.

A review of the literature was conducted to determine what information concerning this topic had been published. The areas within the review included education of the hearing impaired, hearing impaired learners with special needs, the development of the Standards For Library-Media Centers In Schools For The Deaf, and a review of a study in 1975 comparing these Standards with the current status of library media centers in public residential schools for the deaf.

Development of the Instrument

A survey instrument was developed based on the Standards For Library-Media Centers In Schools For The Deaf (1967), the Evaluation of Media Programs: District and School (1980), and, in part, on a previous survey developed by Opocensky in 1975. The questionnaire was formulated with the assistance of several members of the doctoral committee and the director of research in the College of Education of the University of Oklahoma. The expansion of the questionnaire beyond the basic Standards was necessitated

because of the changes and developments in materials and resources since the Standards were published in 1967. The questionnaire was pilot tested using five public school library media specialists. Library media specialists in public day schools for the deaf were not used so as not to deplete the number of individuals in the sample.

The questionnaire was mailed to sixty-three public day schools for the deaf in the United States. The questionnaire was divided into five sections; (1) personnel; (2) program and services; (3) expenditures; (4) collections; and (5) facilities. The first page of the questionnaire was designed to seek demographic information about the school, library media center, and the students.

The respondents of the questionnaire were asked to assess items (questions) on the questionnaire as they exist or fail to exist in their particular setting. The results are intended to be descriptive of library media centers in public day schools for the deaf and not judgmental of individual programs.

The Population and Sample

The population and sample consisted of the sixty-three public day schools for the deaf as listed in the April, 1981 and April, 1982 issues of the American Annals of the Deaf. This population was chosen because a portion of the 1967 Standards had been developed using public day schools and a more recent study of the Standards (Opocensky, 1975) was based on public residential schools for the deaf.

There was a wide diversity among the schools in the sample. All schools do not offer the same grade ranges and some schools are listed as not having any library media personnel on staff. The overall grade range was from pre-

school (P) through twelfth grade (12) with some schools having a shorter grade span. Table 1 lists the schools by their number, the number of students enrolled, the grade range, and the number of library media personnel reported.

The geographical distribution can be found in Table 2. Public day schools for the deaf in twenty-four states and the District of Columbia were included in this study. The largest school had twelve hundred students while the smallest had only three. Thirty-four of the schools provide programs from pre-school through grade twelve.

Data Collection Procedure

The questionnaire, along with a cover letter, and a self-addressed, postage paid envelope for returning the questionnaire was mailed to each of the sixty-three schools in the sample. After a period of two weeks, a second letter, questionnaire, and a self-addressed, postage paid envelope was mailed to each of the schools that had not responded. All schools not responding within two weeks of the second mailing were contacted by telephone to obtain the needed information. It was not possible to contact all non-responding schools by telephone as some had closed for the summer.

Analysis Procedure

The results of the questionnaire will be presented as percentages to determine the use and non-use of materials and resources. The data will also show the availability of items and to bring out current practices in library media center operation in public day schools for the deaf. The results of the questionnaire will be compared to the 1967 Standards to determine the position of library media centers in public day schools for the deaf in meeting, exceeding, or failing to meet the 1967 Standards. Those items on the

Table 1
Public Day Schools for the Deaf

School Number	Number of Students	Grade Range	Lib/Media Personnel
1	10	P-K	0
2	160	P-12	3
3	11	P-10	0
4	65	P-8	0
5	47	P-12	1
6	47	P-6	0
7	129	9-12	1
8	73	P-8	1
9	65	P-12	0
10	1200	P-12	2
11	25	P-12	1
12	50	P-12	0
13	90	P-5	1
14	102	P-8	1
15	136	P-12	1
16	160	P-9	7
17	174	P-12	7
18	220	P-10	2
19	151	P-12	0
20	100	P-12	1
21	6	P	0
22	30	P-6	0
23	150	P-12	3
24	87	P-12	1
25	114	P-12	1
26	90	K-8	1
27	20	K-5	0
28	51	K-8	1
29	57	P-12	0
30	58	P-8	1
31	92	P-6	0
32	199	P-6	3
33	203	P-8	2
34	99	P-10	2
35	177	P-12	3
36	472	P-12	1
37	96	P-9	0
38	75	P-6	0
39	284	P-12	1
40	343	P-12	2
41	141	K-12	1
42	126	P-9	1

Table 1

Public Day Schools for the Deaf (cont.)

School Number	Number of Students	Grade Range	Lib/Media Personnel
43	157	P-12	2
44	5	P-K	0
45	27	P-12	1
46	153	P-12	1
47	91	P-K	2
48	173	P-12	2
49	295	P-12	2
50	76	P-6	0
51	26	P-12	1
52	31	P-12	0
53	214	P-12	0
54	51	P-12	1
55	67	P-12	1
56	53	1-12	0
57	164	P-12	3
58	85	P-12	5
59	3	P-2	0
60	92	P-12	0
61	136	P-8	0
62	145	P-12	0
63	27	P-12	0

questionnaire that are not included in the 1967 Standards will be analyzed to determine if they should be included in a possible revision of the Standards and will be discussed in the recommendations section of the study.

Table 2
Number of Schools Per State

California	13	Delaware	1
Texas	11	District of Columbia	1
New Jersey	5	Florida	1
New York	5	Georgia	1
Massachusetts	3	Hawaii	1
Ohio	3	Iowa	1
Arizona	2	Kansas	1
Illinois	2	Louisiana	1
Missouri	2	Michigan	1
Pennsylvania	2	Oregon	1
Alabama	1	Rhode Island	1
Arkansas	1	Tennessee	1
		Wyoming	1

(American Annals of the Deaf, April, 1981 and April, 1982).

CHAPTER IV

ANALYSIS OF DATA

The data presented here was the result of a questionnaire that was mailed to sixty-three public day schools for the deaf in the United States as they were listed in the April 1981 and April 1982 issues of the American Annals of the Deaf. From this research it was determined that of the sixty-three schools that were listed as public day schools for the deaf, twenty-five schools were of other types and therefore eliminated from the population. Some of the schools were integrated regional programs while others were day classes for the deaf in regular school settings. Several schools that were listed as public day schools were actually private day schools for the deaf. Thus, by adhering to the limitations of the research design and the purpose of the study, the population of public day schools for the deaf was reduced to thirty-eight. The data reported below does not meet the recommendations of the standards unless otherwise noted.

Responses were received from thirty-two schools (84%) while six schools (16%) did not respond to the questionnaire or the attempt to contact them by telephone. From the thirty-two schools responding two groups were formed consisting of those schools with Library Media Centers and those schools that did not have Library Media Centers. Eighteen schools (56%) indicated having a Library Media Center while fourteen schools (44%) did not. The information on students in schools with no Library Media Center is located in Table 3 and the student information in schools with Library Media Centers can be found in Table 4.

Table 3

**DEMOGRAPHIC DATA
SCHOOLS WITHOUT LIBRARY MEDIA CENTERS**

Grade Range:

P-12	9
P- 6	3
P- 5	1
P-K	1

Student Data

Total Number of Students	1222
Male Students	620
Female Students	602
Average Students Per School	87.3
Total Students Who Are:	
Deaf-Hearing Impaired Only	1020
Deaf-Blind	4
Deaf-Mentally Retarded	79
Deaf-Learning Disabled	47
Deaf-Socially or Emotionally Disturbed	26
Deaf-Multi Handicapped	41
Deaf-Gifted	5

A wide diversity was anticipated among the schools in this survey because of educational philosophies, administrative organization of Library Media Centers, needs of the student population, and the varying aspects of different curriculums. This assumption proved to be correct. All schools reporting did not provide a one hundred percent response to all of the statements on the questionnaire. Therefore, the comparative base of rating each response varies in some instances as to the data reported.

Personnel

The competent operation of a Library Media Center requires well trained and qualified individuals. The 1967 Standards suggest several levels of positions

Table 4

**DEMOGRAPHIC DATA
SCHOOLS WITH LIBRARY MEDIA CENTERS**

Grade Range:

P-12	13
P- 9	1
P- 8	1
P- 6	1
9-12	1
Nongraded	1

Student Data

Total Number of Students	2421
Male Students	1262
Female Students	1159
Average Students Per School	134.5
Total Students Who Are:	
Deaf-Hearing Impaired Only	2157
Deaf-Blind	21
Deaf-Mentally Retarded	42
Deaf-Learning Disabled	67
Deaf-Socially or Emotionally Disturbed	30
Deaf-Multi Handicapped	80
Deaf-Gifted	14

within the Library Media Center to best facilitate the needs of the faculty and students. Such positions as directors, audiovisual specialists, early childhood and storytelling specialists, graphic artists, secretaries, aides, and technicians are included in the Standards as representing a quality Library Media Center staff. As expected, there was a wide diversity in position titles reported.

The Standards suggest an educational preparation for library media specialists with an undergraduate degree in deaf education and a graduate degree in library media. However, this was not the case as reported by the

individuals in this survey. Thirty-three percent of the schools reported having library media specialists with only an undergraduate degree in library media. One school indicated only having one full time aide with no degree as head of the Library Media Center. Another school had two librarians but only for two days and one day per week respectively while another reported only having one part-time library media specialist. Of those reporting fifty percent had library media specialists with the recommended educational background as suggested by the standards. Sixty percent of this group reported only having one professional library media position in the school.

Support personnel as outlined in the Standards were not generally found in this survey. Thirty-three percent of the schools reporting had one non-degree aide working in the library media center while one school indicated having a full time secretary in the Library Media Center. No other support personnel were indicated as being available by those reporting.

Staff Functions

The Standards (1967) presented a very detailed listing of the proposed functions and duties of each specific staff member that should be found in the Library Media Center. However, realizing that a wide range of possible personnel combinations could exist in the schools it was unrealistic to include all of the suggested responsibilities for each staff member within the questionnaire. Therefore, the responsibilities listed in the Standards were combined where it was possible to give a more concise listing for the respondents. Instead of making a differentiation between who was responsible for accomplishing a particular duty, it was determined that the most important

factor was whether or not the particular responsibility was being accomplished by some member of the staff. The particular responsibilities and the percentage of schools performing those responsibilities can be found in Table 5.

Several areas of responsibility were indicated as being performed by all of the schools reporting. These areas included selection and evaluation of materials, scheduling and distributing hardware and software, serving as a resource person for students and teachers, and reserving instructional media for school use.

The next responsibility areas that were reported by 93% of the schools included conferring with administrators and/or board concerning library media, handling orders, rental, loans, maintenance and repair of equipment and materials, and organization of the Library Media Center collection. It is interesting to note that seven percent of the schools did not perform organization of the library media collection nor did they indicate who was responsible for this duty.

The following responsibilities were performed by 87% of the schools. These included conducting in-service for faculty and staff, cataloging materials, and producing graphics, photographs, audio and video materials. The thirteen percent of the schools who indicated not providing cataloging services or production type services did not indicate if these services were available from other sources either within or outside of the schools.

Operating office machines and equipment was offered in 80% of the schools while introducing special interest materials to classes, promoting and using instructional television, and locating bibliographic information could be found in 73% of the schools. As noted earlier, while 100% of the library media

Table 5

**DUTIES PERFORMED BY LIBRARY MEDIA
CENTER PERSONNEL**

	Percent Performed	Percent Not Performed
Confers with administrator and/or board concerning library/media	93%	7%
Participates in curriculum development and revision	60%	40%
Designs instructional materials	53%	47%
Helps to develop and implement proposals for federal projects and programs	47%	53%
Coordinates selection and evaluation of learning materials and appropriate equipment	100%	0%
Conducts in-service for faculty and staff	87%	13%
Instructs students in developing library/media skills	67%	33%
Catalogs materials	87%	13%
Handles orders, rentals, and loans	93%	7%
Maintains and repairs equipment and materials	93%	7%
Schedules and distributes both hardware and software	100%	0%
Duplicates educational materials	67%	33%
Serves teachers and students as a resource person	100%	0%
Produces graphic, photographic, audio, and video materials	87%	13%
Provides storytelling experiences	47%	53%
Introduces materials of special interest to classes	73%	27%

Table 5 (cont.)

**DUTIES PERFORMED BY LIBRARY MEDIA
CENTER PERSONNEL**

	Percent Performed	Percent Not Performed
Directs and promotes the use of instructional television	73%	27%
Operates office machines and equipment	80%	20%
Locates bibliographic information	73%	27%
Reserves instructional media	100%	0%
Organize the library/media center collection	93%	7%
Promotes the use of microcomputers	20%	80%

centers staff indicated serving as a resource person for faculty and staff, twenty-seven percent did not consider locating bibliographic information as a responsibility of a resource person.

Two areas reported by 67% of the schools included instructing students in developing library media skills and duplicating educational materials. That 33% of the Library Media Centers did not provide instruction for students in developing library media skills may be from the lack of full time professional personnel being available in all schools.

At this point the number of responsibilities and percentages began to decrease. Sixty percent reported participating in curriculum development and revision while 53% designed instructional materials. It is interesting to note that while the library media center is designed to support and be a part of the

overall school curriculum, 40% of those schools reporting were not involved with this process.

The following responsibilities were reported by less than 50% of the respondents: Developing proposals for federal projects and providing storytelling experiences were reported by 47% of the schools while promoting the use of microcomputers was reported by only 20% of the schools. Of interest here is the low percentage of storytelling experiences found in Library Media Centers in public day schools for the deaf when this function is generally provided in public school libraries.

Expenditures

The successful operation of any Library Media Center is usually dependent on having an adequate budget to supply the personnel, materials, and other resources to meet the needs of the faculty, staff, and students. The 1967 Standards placed heavy emphasis on this.

The Standards recommended a minimum of \$3,750-\$5,000 with an additional \$1,000 added to the minimum for additional printed materials. Table VI gives the average expenditures for the four areas listed over a three year period. It should be noted that the average expenditures for library books and materials did not reach the minimum suggested by the 1967 Standards. The highest average was \$2,011.29 and the lowest was \$1897.86. Of the schools reporting expenditures for library books and materials, 43% met the minimum recommendations of the Standards. One school exceeded these recommendations and that was for all three fiscal years. However, on the lower side of reported expenditures one school provided \$100 and another \$145 for print materials.

Table 6
AVERAGE EXPENDITURES

	Expenditure Last Year (80-81)	Expenditure This Year (81-82)	Anticipated Expenditure For Next Year (82-83)
Library books and materials	1897.86	2011.29	1954.14
Audiovisual materials	2220.00	3720.00	3960.00
Audiovisual equipment (new)	4766.67	6816.67	2016.67
Audiovisual equipment (replacement)	620.00	1100.00	1320.00

The recommendations of the Standards for audiovisual materials calls for \$12 per student plus an annual budget of \$1,000 which should always be available. With an average school enrollment of 134.5 the expenditure at \$12 per student is \$1,614. Adding the \$1,000 annual budget the total expenditure for audiovisual materials is \$2,614. Table 6 shows that this minimum recommendation was surpassed by the 81-82 and 82-83 school year budgets. This overall increase may be due to the increased use of highly visual materials in the education of the hearing impaired. The overall averages for 81-82 and 82-83 were affected by one school that reported a \$10,000 budget for both school years. However, one school reported a 0\$ budget for all these years included in this questionnaire. Only 28% of the schools gave dollar amounts for the section on audiovisual materials.

Two areas included on the questionnaire that were not mentioned in the Standards were audiovisual equipment (new) and audiovisual equipment

(replacement). The average expenditures for new audiovisual equipment can be found in Table 6. The averages presented huge difference in expenditures reported from year to year. One school reported a budget of \$20,000 for new audiovisual equipment in 80-81 but only \$2,000 in 81-82 and \$1,000 in 82-83. Another school reported a \$2,000 expenditure in 80-81 and a \$30,000 expenditure in 81-82. They reported a \$0 budget for new equipment in 82-83. Thirty-three percent of the schools responded with numerical data for this item.

For replacement of audiovisual equipment the reported allotted budget continued to increase from \$620 in 80-81 to \$1,320 in the 82-83 school year. The possible reason for such a low amount in the 80-81 school year is that some schools reported \$0 budgets for that year, a total of 28% responded to this section on expenditures.

Respondents were asked three questions concerning the Library Media Center budget. Fifty-seven percent of the respondents indicated that a separate Library Media Center budget was prepared. However, 64% of those responding stated that the Library Media Center Director was not responsible for developing the Library Media Center budget. Principals or other school administrators were cited as the individuals generally responsible for the development of the Library Media Center budget.

Concerning the control over expenditures, 50% indicated this was handled by the Library Media Center Director and 50% by administrative personnel. The results of this section can be found in Table 7.

Facilities

The need for adequate Library Media Center facilities is necessary, not only in schools for the hearing impaired, but in all educational settings. The

facilities should be designed to stimulate learning and teaching while providing for the individual and group needs of the students.

Concerning the integration of print and non-print materials the Standards suggest that "all schools must determine what the relationship will be between

Table 7
BUDGET RESPONSIBILITY

	YES	NO
Is a separate library/media center budget prepared?	57%	43%
Does the library/media center director have responsibility for the development of the library/media center budget? If not, who develops budget?	36%	64%
Does the library/media center director have control over the expenditure of the library/media center funds? If not, who controls expenditure?	50%	50%

printed and audiovisual materials" (Cory, 1967, p. 38). The Standards go on to state that the cross media approach to materials:

Can best be achieved through integrated Library-Media Centers, unified collections, organized and indexed (cataloged) together, and with a unified staff. This arrangement constitutes the most functional, convenient, and economic organizational pattern, and provides for optimum service to students and teachers (Cory, 1967, p. 33).

For the section dealing with facilities the respondents were asked to rate each statement in relation to the adequacy of their facility by indicating if it is superior, above average, average, below average, poor or non-existent, or non-applicable. Information was also sought concerning the approximate square footage and the seating capacity of certain areas. The information concerning facilities can be found in Table 8.

Space Allocations (Main Reading Area)

The circulation and distribution areas were rated as "average" or above by 85% of the respondents. The average approximate square footage was reported to be 237.5 with an average seating capacity of 8.2 for circulation and distribution.

The individual viewing and listening area was reported as being "average" by 46% of the respondents while 31% indicated "non-applicable" or did not respond. A 3.5 average seating capacity was indicated while a reported average of 175 square feet was available. Individual study was another section of the main reading area that closely resembled the individual viewing and listening area in relation to what was available. The average square footage was 168.8 and a reported seating average of seven. Fifty-four percent of those responding reported a rating of "average", 23% indicated "non-applicable", and 15% responded that this area was "poor or non-existent".

The reading area was reported as having the largest square footage (457) and the largest seating capacity (29.8). While 77% of the respondents reported a rating of "average" or above, 15% indicated "non-applicable" or did not respond. Eight percent stated that their reading area was "poor or non-existent".

Table 8
FACILITIES

1 - Poor or Non-Existent
2 - Below Average
3 - Average
4 - Above Average
5 - Superior
6 - Non-applicable

SPACE ALLOCATION	1	2	3	4	5	6
Circulation and distribution	0	8	62	23	0	8
Conference	0	15	46	8	0	31
Group Viewing and Listening	0	23	31	31	8	8
Individual Viewing and Listening	15	8	46	0	0	31
Individual Study	15	8	54	0	0	23
Reading	8	0	62	8	8	15
Periodicals	8	8	46	15	0	23
Materials Processing	8	8	46	8	0	31
Materials Production:						
Graphics	8	15	31	15	8	23
Photography	8	15	23	41	0	23
Printing and Duplicating	0	8	46	15	8	23
Recording	8	8	38	8	8	31
Television/Video	8	15	38	8	8	23
Professional Materials Area	0	8	31	8	8	46
Staff Work Area:						
Clerical	15	0	54	0	8	23
Professional Staff	8	0	46	0	8	38

Table 8 (cont.)

FACILITIES

- 1 - Poor or Non-Existent
 2 - Below Average
 3 - Average
 4 - Above Average
 5 - Superior
 6 - Non-applicable

SPACE ALLOCATION	1	2	3	4	5	6
Repair:						
Equipment	8	0	62	0	8	23
Materials	8	0	62	0	8	23
Shipping and Receiving	15	8	46	0	8	23
Storage:						
Equipment	8	8	54	8	8	15
Materials	0	15	54	8	8	15
Periodicals	8	0	46	8	8	31
Supplies	0	15	46	8	8	23
Furnishings:						
Moveable cabinets	0	23	23	15	8	31
Cabinet storage for media materials	0	23	38	8	15	15
Furnishings provide good reading and study conditions	0	8	62	8	8	15
Enough tables and chairs to meet the needs of students and teachers	0	8	54	23	8	8
Shelving	0	8	62	8	15	8
Moveable carts for need in distribution	0	8	31	31	23	8
Study Carrels	15	8	23	8	8	38
Wet Carrels	23	15	15	0	0	46

Sixty-two percent of those responding stated that the periodicals area was "average" or above while 23% indicated "non-applicable" or did not respond. The average seating capacity was 4.5 while an average of 273.8 square feet was reported for this area.

The Standards suggest that the main reading area should have a seating capacity of 45-55 in schools of 250 students or less. From this study the combined average total for seating capacity is 53, thus meeting the recommendations of the Standards. The Standards also recommend a minimum of 1800 square feet in the main reading areas for schools with less than 250 students. However, the respondents of this questionnaire only indicated an average of 1312.1 square feet in the main reading area thus not meeting the minimum recommendations of the Standards.

Other areas such as conference, materials processing, materials production, and group viewing and listening were suggested by the Standards that they should be separate rooms within the Library Media Center. The conference area as reported in this study had an average square foot area of 341.7 and an average seating capacity for eleven. Forty-six percent of those responding indicated their conference area was "average" while 31% checked "non-applicable" or did not respond. Fifteen percent stated that the conference area was "less than average" for their purposes.

For group viewing and listening the Standards recommend a seating capacity for three classes and the average number of attending adults. Of the respondents (69%) felt that this group viewing and listening area was "average" or above. An average seating capacity of 30.4 and an average square footage of 620.8 were reported. Although the Standards do not provide quantitative

recommendations for group viewing and listening those responding indicated that their area was adequate of their needs.

Fifty-four percent of those responding stated that their materials processing area was "average" or above while 31% indicated "non-applicable" or did not respond. The average square footage was reported to be 183.3 with a 2.7 average seating capacity.

Faculty and students should have production areas available to produce materials for teaching and learning. Of the schools that indicated having production areas, television had the largest average area with 362.5 square feet. The other areas in order of available space included recording at 275 square feet, print and duplicating 272 square feet, graphics 213 square feet and photography 180 square feet. Fifty-four percent of those responding indicated a rating of "average" or above for graphics, photography, recording, and television/video productions. For printing and duplicating, 69% indicated an "average" or above rating. Thirty-one percent of the schools marked "non-applicable" or did not respond in the area of recording.

Professional Materials

A professional materials area was indicated by 46% as "average" or above while 46% checked "non-applicable" or did not respond. An average of 375 square feet was reported with an 8.3 average seating capacity.

In the staff work area the professional staff area had a reported square footage of 433.3 with a seating capacity for five. Equipment repair had a 348.3 square foot average while shipping and receiving had 250 square feet available. The average square footage for materials repair was 165 square feet and clerical staff work area was 91 square feet. A majority of those reporting felt

that these facilities were "average" or above for all areas. However, 38% indicated "non-applicable" or did not respond to providing a professional work area.

The average square footage for storage areas were reported as follows: equipment 162; materials 147.6; periodicals 147; and supplies 194.5. Again, a majority of the respondents indicated their facilities were "average" or above for their particular needs. Thirty-one percent marked "non-applicable" or did not respond to having a periodicals storage area.

Space Allocation (Furnishings)

The Standards do not provide quantitative recommendations for furnishings except that they should be attractive and stimulating for students and staff. Moveable cabinets received an "average" or above rating from 46% of the respondents while 23% indicated a "below average" rating. Thirty-one percent indicated "non-applicable" or did not respond.

Seventy-seven percent of the respondents to the item "Furnishings provide good reading and study conditions" felt that their school Library Media Center were "average" or above. In providing "Enough tables and chairs to meet the needs of students and teachers" Table 8 indicates that 85% checked a rating of "average" or above for their item. Shelving and moveable carts were rated as "average" or above by 85% of the respondents.

The Standards state that study carrels should be provided in adequate numbers for student use. Thirty-eight percent indicated "non-applicable" or did not respond to the availability of study carrels while 15% indicated "poor or non-existent". Wet carrels, those wired for viewing and/or listening to audiovisual materials, were even less prevalent than study carrels. Forty-six

percent indicated "non-applicable" or did not respond to having wet carrels while 23% stated that theirs were "poor or non-existent". The use of study and wet carrels does not seem to be in wide spread use according to the results of this study.

The Standards recommend that Library Media Centers in schools for the deaf should be centrally located for ease of use by students and faculty. The respondents to this questionnaire indicated that 94% of the Library Media Centers were centrally located while 6% were not. The Standards recommend that outside accessibility to the Library Media Center be available for the extended hours use by students. Only 25% stated that their Library Media Center had outside accessibility available for extended use after school while 75% of the Library Media Centers did not have this available for their students.

Collections

The need for an adequate collection of materials and resources available for faculty and student use cannot be overemphasized. The Library Media Center is only as good as the personnel and collections that are provided. The collections area of this questionnaire includes the following areas: professional print materials; print and non-print materials; learning materials; and teaching and productions equipment. All information concerning collections is located in Table 9.

The professional print collection is important in giving teachers a resource for new ideas and techniques in teaching. Concerning professional book collections the Standards state:

The number of titles in professional libraries should be based upon the total of all professional titles actually in print in one special field, plus a reasonable number of titles in other areas of special education and in general education (Cory, 1967, p. 30).

Table 9
COLLECTIONS

1 — superior
2 — more than adequate
3 — adequate
4 — less than adequate
5 — none or did not respond

	Quantity Rating %						Quantity Rating %				
	1	2	3	4	5		1	2	3	4	5
PRINT AND NON PRINT PROFESSIONAL COLLECTION											
Books	7	7	50	0	36		7	14	43	0	36
Periodicals/Journals:											
Education of the Deaf	21	14	50	7	7		7	36	36	14	7
Educational Technology/ Audiovisual	7	14	50	14	14		7	36	14	29	14
General Education	7	14	50	7	21		7	21	43	7	21
MATERIALS COLLECTION											
Books:											
Hardbound	21	14	43	7	14		21	14	43	7	14
Paper bound	21	7	36	14	21		7	21	43	7	14
Sets of Encyclopedias	21	43	14	7	14		14	36	29	7	14
Periodicals Appropriate for:											
K - 6	15	28	38	15	8		8	28	46	15	8
7 - 9	8	28	38	15	15		8	28	38	15	15
10 - 12	8	17	50	0	25		8	17	42	8	25
Newspapers	7	0	43	14	36		7	7	50	0	36
Vertical Files	14	29	36	0	21		7	36	29	7	21

Table 9 (cont.)

COLLECTIONS

1 — superior
 2 — more than adequate
 3 — adequate
 4 — less than adequate
 5 — none or did not respond

	Quantity Rating %					Quantity Rating %				
	1	2	3	4	5	1	2	3	4	5
Films (16mm)										
Captioned	21	21	14	0	43	14	21	14	7	43
Films (8mm, Super 8)	0	7	29	7	57	0	7	29	7	57
Video tape:										
Cassette	7	29	14	21	29	14	29	21	7	29
Reel-to-Reel	7	29	7	14	43	14	7	29	7	43
Filmstrips (Single units within sets)	14	36	36	7	7	14	29	43	7	7
Slides (Sets)	14	21	29	14	21	14	29	21	14	21
Disc Recordings	0	14	36	0	50	7	21	7	14	50
Audio Tape Recordings:										
Cassette	14	14	29	14	29	7	21	29	14	29
Reel-to-Reel	0	7	14	7	71	7	14	7	0	71
Study Prints (Singles)	21	21	36	7	14	7	36	36	7	14
Maps/Globes	14	36	36	7	7	21	36	21	14	7
Diorams, Relia	14	21	14	7	43	14	21	14	7	43
Art Objects	7	7	0	7	79	7	7	0	7	79
Transparencies (Singles)	21	36	36	0	7	14	36	29	14	7
Transparency Masters	21	29	29	0	21	14	29	29	7	21

Table 9 (cont.)

COLLECTIONS

- 1 — superior
 2 — more than adequate
 3 — adequate
 4 — less than adequate
 5 — none or did not respond

	Quantity Rating %					Quality Rating %				
	1	2	3	4	5	1	2	3	4	5
Microfilm/Microfiche	21	0	7	0	71	21	7	0	0	71
Computer Programs	0	14	21	7	57	7	14	21	0	57
EQUIPMENT										
Overhead Projectors	29	43	21	7	0	7	57	29	7	0
Opaque Projectors	14	29	43	14	0	7	36	43	14	0
16mm Projectors	14	14	64	7	0	14	21	64	0	0
8mm Projectors	0	21	36	14	29	0	14	57	0	29
Slide Projectors	7	14	64	7	7	14	21	57	0	7
Filmstrip Projectors	14	36	43	7	0	14	29	50	7	0
Filmstrip Viewers/Pre-viewers	14	21	43	7	14	21	29	36	0	14
Record Players	7	21	57	14	0	7	21	50	21	0
Cameras:										
Video	14	14	57	7	7	14	14	43	21	7
8mm	0	14	43	0	43	0	21	36	0	43
35mm	14	14	43	0	29	14	21	36	0	29
Polaroids	14	14	50	7	14	7	21	50	7	14
Visual Maker	0	7	50	0	43	0	7	50	0	43

Table 9 (cont.)

COLLECTIONS

- 1 — superior
 2 — more than adequate
 3 — adequate
 4 — less than adequate
 5 — none or did not respond

	Quantity Rating %					Quality Rating %				
	1	2	3	4	5	1	2	3	4	5
Audio Tape Equipment:										
Cassette Player/Re- corders	14	7	50	21	7	7	14	64	7	7
Reel-to-Reel Recorders	7	29	36	7	21	7	14	57	0	21
Audio Tape Duplicators	0	7	21	0	71	0	0	21	7	71
Video Equipment:										
Cassette Player/Re- corders	21	14	50	7	7	14	7	71	0	7
Reel-to-Reel Recorders	7	7	64	0	21	7	0	64	7	21
Monitor/Receivers	14	14	43	7	21	14	14	50	0	21
Projection Screens	29	14	50	7	0	21	21	50	7	0
Microfilm Reader/Printers	7	7	29	0	57	14	0	29	0	57
Photocopiers	0	0	64	7	29	0	0	64	7	29
Heat Process Copiers	0	0	57	7	36	0	7	50	7	36
Dry Mount Presses	7	14	64	0	14	7	14	64	0	14
Audio Flash Card Programs (such as Language Master)	14	29	43	7	7	7	21	57	7	7
Duplicating Equipment	29	7	57	7	0	29	14	50	7	0
Microcomputers	7	14	21	7	50	7	21	21	0	50

With no actual figures given the possible number of professional collections could be enormous. Thus, the real measure of the adequacy of a professional print collections is based on the quantity and quality rating of the respondents. (It should be noted at this point that all of those responding to the quantity and quality rating in the collections section did not necessarily respond with the numerical information requested).

Professional book collections were indicated as "adequate" or above by 64% of the respondents for both quantity and quality. However, 36% of those responding indicated that they did not have a professional book collection. The average number of titles available in professional book collections was 885. Numerical data was provided by 36% of the respondents.

The Standards list the number of titles for professional periodicals and journals in a collection at ten. However, the average number of titles reported as being available was 7.7 with only 50% of schools giving actual numbers. Eighty-six percent indicated that the quality of periodicals and journals in the area of education of the deaf was "adequate" to "superior" while 79% the quality was "adequate" or above. It is interesting to note that one school did not provide periodicals or journals in the area of education of the deaf.

The collection of periodicals and journals in Educational Technology and Audiovisual Instruction were rated as "adequate" or above by 71% of the respondents. Fourteen percent indicated their collection was "less than adequate" while 14% did not provide journals and periodicals in this area. The quality rating of periodicals and journals in Educational and Audiovisual Instruction was 57% as "adequate" or above while 29% indicated their collections were "inadequate". The average number of journals and periodicals available was 4.3 as reported by those responding.

In general education 71% of the respondents indicated that the quantity and quality rating was "adequate" or above. The average number of holdings was reported as eleven. However, the average was inflated by one respondent who indicated having fifty titles within the general education area. Without calculating this number into the total number of titles the average holdings were 3.5 which is closer to the overall reporting of the respondents.

The 1967 Standards suggested a minimum book collection of 6,000 to 10,000 in Library Media Centers in schools for the deaf. Only two schools exceeded the lower end of the suggested total number of books (6,000) while one school exceeded the upper total of 10,000. However, at the other end of the spectrum, one school only provided 500 books for student use. All of the above totals include both hard bound and paper bound books. The average number of books reported was 5135.7 for hard bound and 400 for paper bound which combined still falls short of the lowest recommendation of the Standards.

The quality and quantity rating for hard bound books was listed at 79% for "adequate" or above for those reporting. Two schools indicated that they did not have a book collection. One respondent stated that they used a local elementary school library while the second respondent did not indicate how books were provided for their students. Sixty-four percent of those responding indicated that their paper bound collection was "adequate" or above in quantity while 71% was "adequate" or above in quality.

Although encyclopedias were not specifically included in the area of print collections by the Standards, they were included in this questionnaire as a separate item because they are an important and necessary part of any print collection. Of those reporting, 79% indicated that the quantity and quality of

their encyclopedia collection was "adequate" or above. The average number of sets reported available in the Library Media Center was five.

Number of periodicals appropriate for the different grade ranges as suggested by the Standards were not found to be available from this study. In the K-6 grade range the Standards suggest a holding of 25-30 titles. However, the average number of titles available was 4.3 for this grade range. But, according to those responding 81% felt that their K-6 periodical collection was "adequate or above in both quantity and quality. Only 15% of the respondents indicated that their collection was "less than adequate".

Virtually the same situation exists for periodicals in grade 7-9. The Standards suggest a total of 30-50 titles but those responding averaged 3.7 titles. Seventy-four percent indicated that the quantity and quality of their collection was "adequate" or above.

For periodicals in the 10-12 grade range the average number of titles indicated was 6.2 while the Standards suggest 40-120 titles. Seventy-five percent of the respondents indicated that their quantity was "adequate" or above while 57% indicated the same rating for quality.

Newspapers were another item that did not show the number of titles that were suggested by the Standards. This study indicated that 1.2 titles were available in Library Media Centers while the Standards state that 3-6 titles should be available. Fifty percent of those responding indicated that the quantity rating was "adequate" or above while 64% stated that the quality was "adequate" or above. However 36% indicated that newspapers were not available in the Library Media Center.

Concerning pamphlets and vertical file materials the Standards suggest having an extensive number available for use. Seventy-nine percent indicated that their vertical file holdings were "adequate" or above while 21% of the respondents did not maintain vertical files for use by students or faculty. The quality rating was 29% for "adequate", 36% for "more than adequate", and 7% for "superior".

The Standards state that schools should provide motion pictures whether from the schools collection or from some outside agency in adequate numbers for use by students and faculty. This is true for both 16mm and 8mm films.

The general tendency by public day schools for the deaf is to borrow films (16mm captioned) from outside sources. Fifty-seven percent of those responding to this survey indicated that their collection of 16mm captioned films was "adequate" or above. The average number of films available was 404 but with 43% of the schools indicating "none" to this statement this figure is distorted.

Table 9 shows that for 8mm films 57% of the Library Media Centers do not have or did not indicate the availability of this item. Only 36% indicated that their 8mm film collection was "adequate" or above in both quantity and quality. The average number of titles reported was 67.3. Again, because of the low number of schools that reported this information, these figures are distorted.

Although video tape is not mentioned in the Standards, they do say that "It is recommended that schools for the deaf provide additional audiovisual materials. . . as needed in the curriculum" (Cory, 1967, p. 32). The cassette format of video tape was more prevalent than reel-to-reel tape. Fifty percent

of the respondents stated that the quantity of video cassettes was "adequate" or above while 29% indicated none or gave no response. The average number of video cassettes available was 87.8 and although this number may be low the quality rating of "adequate" or above was given by 64% of the respondents. Reel-to-reel video tape was found in fewer schools than video cassettes. Forty-three percent indicated not having reel-to-reel video tape or did not respond to this question. However, 29% did indicate that the quantity of reel-to-reel video tape was "more than adequate" while 50% stated that the quality was "adequate" or above. The average number of reel-to-reel video tape was 103 but since only 14% of the respondents gave numerical data to this question the number itself has little impact.

Concerning filmstrips the Standards state that they are "one of the most useful classroom materials. . . (and) a basic collection. . . should have at least two filmstrips per student" (Cory, 1967, p. 32). Although the average number of filmstrips was reported at 1414.3, which is not two filmstrips per student, most respondents (86%) indicated that their collections were "adequate" or above for both quantity and quality. The Standards go on to say that these new titles per student should be added to the filmstrip collection each year (Cory, 1967).

Slides are an area that the Standards suggested should be available but gave no quantitative listing. The average number of slide sets was reported at 150.5 with 64% of the respondents stating that their collections were "adequate" or above in both quantity and quality. Only 21% indicated not having slides available in the Library Media Center.

Audio materials have been found to be useful with hearing impaired learners and while the Standards recognize this they do not give any

quantitative listings for audio materials. For disc recording 50% of those responding indicated their quantity was "adequate" or above. Only 36% considered the quality rating as "adequate" or above. Audio cassette tapes were found to be "adequate" or above in both quantity and quality by 57% of the respondents. However, reel-to-reel audio tape was reported by 71% as not being available or they did not respond. The average number of disc records was 110 and audio cassette tape was reported at 162.5 by those responding. Numerical data on reel-to-reel audio tape was only given by one respondent.

Study prints were reported in large numbers with an average of 871.4 per school being available. Seventy-nine percent reported their collections were "adequate" or above for both quantity and quality. Art objects conversely were not readily available in Library Media Centers. Seventy-nine percent listed "none" or did not respond to having any.

Maps and globes were reported as "adequate" or above in quantity by 85% of the respondents. The average number of items available were reported at 55.3 and generally were available in most Library Media Centers. Dioramas and realia objects were reported as "adequate" or above by 50% of the respondents. The average number of items was reported at 5.3 but the low number of schools reporting numerical data would make this data distorted.

Single transparencies were reported as "adequate" or above by 92% of the respondents by quantity and 79% for quality. Transparency masters had a quantity rating of 79% for "adequate" or above and a quality rating of 71% at "adequate" or above. The average number of transparencies were 1467.3 while the average number of transparency masters were 1640 as reported by the respondent.

Microfilm and microfiche were generally not available in Library Media Centers in public day schools for the deaf. Seventy-one percent of the respondents listed "none" or gave no response for this particular item. However, 21% did list their holdings as "superior" in both quantity and quality.

Computer programs were also reported in low numbers. Fifty-seven percent of the respondents listed "none" or did not respond to this item. Twenty-one percent listed their holdings as "adequate" in quantity and quality.

Equipment

Maintaining audiovisual equipment is necessary when utilizing certain types of audiovisual materials. Concerning equipment the Standards state "the Center should have all of the equipment necessary to carry on its functions and responsibilities" (Cory, 1967, p. 42). The results of this questionnaire indicate that most equipment needed in a teaching/learning situation and for production of materials were generally provided by those Library Media Centers responding.

Overhead projectors were supplied by all Library Media Centers responding to the questionnaire. Ninety-two percent of the respondents indicated that their collection of overhead projectors were "adequate" or above in both quantity and quality. The average number of overhead projectors available for use was eighteen.

Opaque projectors were also provided by all schools responding. The average number of opaque projectors reported was 1.9 while 86% of the respondents gave the quantity and quality ratings as "adequate" or above.

Motion picture projectors were generally available for teacher and student use in both 16mm and 8mm. Respondents indicated that 16mm

projectors were available in all schools responding to this questionnaire. A high percentage of respondents felt that their collection of 16mm projectors were "adequate" or above for quantity (92%) and quality (100%). This was not true for 8mm projectors. Fifty-seven percent of the respondents reported a quantity rating of "adequate" or above while 71% state the same for the quality rating. The average number of projectors available was 2.3 while 29% of the respondents indicated "none" or did not respond to this item.

Slide projectors were found in most Library Media Centers with only 7% indicating that they were not available. The highest quantity rating for slide projectors was "adequate" at 64% and the highest quality rating was also "adequate" at fifty-seven percent. The respondents reported an average of 4.4 slide projectors available for use.

Most Library Media Centers indicated having filmstrip projectors and filmstrip viewers/previewers. A rating of "adequate" or above was given by 92% of the respondents for both quantity and quality in filmstrip projectors. An average of 16.6 filmstrip projectors per Library Media Center make it the second highest average in available equipment only to overhead projectors. Filmstrip viewers/previewers had 79% rating as "adequate" or higher for quantity and an 86% quality rating as "adequate" or higher. Fourteen percent indicated "none" or did not respond to the question.

While audio equipment may not be found in great quantities in schools for the deaf and hearing impaired record players were indicated as being available by all respondents. A rating of "adequate" or above was given by 86% for quantity and 79% for quality. An average of 6.6 record players were available according to the responses given.

Video cameras were the most prevalent of all of the cameras. Fifty-seven percent indicated their quantity was "adequate" while 43% indicated the same for quality. However, 21% stated that the quality for video cameras was "less than adequate". An average of 2.3 cameras were indicated as being available in the schools.

Eight mm cameras were rated as "adequate" or above by 57% for quantity and quality while 43% indicated "none" or did not respond. An average of only one 8mm camera was indicated by the survey.

To capitalize on the visual aspects of learning for hearing impaired students, 35mm and Polaroid cameras were found in substantial numbers. Seventy-one percent rated the quantity and quality as "adequate" or above for 35mm cameras. Seventy-nine percent rated the Polaroid as "adequate" or above for quantity and quality also. An average of 3.7 cameras were available for both 35mm and Polaroid.

Visual makers were indicated as "adequate" for both quantity and quality by 50% of the respondents. However, 43% indicated "none" or failed to respond. An average of 1.2 visual makers were found to be available in Library Media Centers from this study.

Of the audio tape equipment listed on the questionnaire cassette player/recorders were generally more available than reel-to-reel tape recorders. Cassette units were available on an average of 6.6 per Library Media Center. Seventy-one percent indicated a quantity rating of "adequate" or above while 21% stated their quantity of cassette units was "less than adequate". Eighty-six percent indicated that the quality was "adequate" or above while 71% of the respondents indicated a quantity rating of "adequate" or above, 21%

indicated "none" or did not respond. Seventy-nine percent stated that the quality was "adequate" or above for reel-to-reel units. An average of 2.6 reel-to-reel units were reported as being available for use in Library Media Centers.

One piece of audio tape equipment that was reported as generally not being available was audio tape duplicator. Twenty-nine percent indicated the quantity they had available as "adequate" or above while 71% indicated "none" or did not respond to this item.

Video equipment seemed to be readily available for students and faculty use in public day schools for the deaf. The quantity rating for video cassette player/recorder was listed as "adequate" or above by 86% of the respondents. A rating of "adequate" or above was given by 79% of the respondents for reel-to-reel video recorder. An average of 2.3 video cassette player/recorder, 1.2 reel-to-reel recorder, and 10.5 monitor/previewers were available according to this study.

Projection screens were available from all schools responding to the questionnaire. Ninety-two percent of respondents indicated that the quantity and quality rating for projection screens was "adequate" or above. An average of 13 projection screens was "adequate" or above. An average of 13 screens were available in the Library Media Center.

Microfilm readers and printers was another item not reported in large numbers. Fifty-seven percent of those reporting listed "none" or did not respond to this item. Forty-three percent stated that the quantity and quality was "adequate" or above. The respondents indicated an average of 2 microfilm readers/printers available in Library Media Centers.

Sixty-four percent of the respondents indicated a quantity and quality rating of "adequate" for photocopiers. However, 29% listed "none" or did not respond to the question. An average of 1.7 photocopiers were available in Library Media Centers. Heat process copiers were not as prevalent as photocopiers. A rating of "adequate" was given by 57% for quantity and 50% for quality. An average of 1.2 copiers were reported as being available while 36% indicated "none" or did not respond.

Although dry mount presses were indicated as being available with an average of 1.2 units, 85% of those responding stated that the quantity and quality was "adequate" or above. Only 14% indicated "none" or did not respond to this item.

Audio flash card units were generally available for use in Library Media Centers. Eighty-five percent stated that their holdings were "adequate" or above for both quantity and quality. An average of 5.3 units were available for use according to this study.

Duplicating equipment was reported by all of the respondents. Ninety-two percent stated that the quantity and quality was "adequate" or above for this item. Respondents indicated an average of 2.5 duplicating units were available.

One of the newer innovations in education is the microcomputer. However, 50% of the responding schools indicated "none" or did not respond to this item. Of those responding 43% stated that their holdings were "adequate" or above for quantity while 50% indicated the same rating for quality. The average number of units available was reported as five.

Programs and Services

Programs and services vary from one Library Media Center to another which is why the programs and services as suggested by the 1967 Standards are of a general nature. Thus the areas covered by this questionnaire are also general rather than specific. Table 10 provides the information covering programs and services.

Individual Services to Patrons

Within the area of individual services to patrons 58% or more of the respondents indicated providing all of the services listed on as a "as needed" basis or "at scheduled intervals". The one item that is not included in the above group is "assisting patrons in developing and producing instructional materials" which was only "as needed" or "at scheduled intervals" in 42% of those schools responding.

Group Work with Patrons

Group work with patrons generally produced the same overall picture as the previous section. All items within this section were provided "as needed" or "at scheduled intervals" by 55% or more of the Library Media Centers except for the following two items. "Conducting story hours for appropriate age groups" and "conducting in service training for teachers and staff in developing instructional materials" were offered in 45% of the schools "infrequently" or "never". It should be noted that this result closely parallels the same type question in the Individual Services to Patrons section.

Public Relations

The public relations area provided an overall higher percentage of Library Media Centers providing services than the two previous sections. All public

Table 10
PROGRAMS AND SERVICES

1 - as needed
2 - at scheduled intervals
3 - infrequently
4 - never

	1	2	3	4
INDIVIDUAL SERVICES TO PATRONS				
The library/media center staff:				
provides reference services	75	8	8	8
provides reading guidance	42	25	17	8
provides guidance in viewing and listening	50	25	17	8
provides individualized programs according to needs	67	17	0	17
provides resources for different levels of maturity and ability	58	33	0	8
provides for cumulative growth in library/media skills	25	42	8	25
provides development of independent study habits	25	33	17	25
promotes the development of desirable attitudes toward reading and the use of media	50	33	0	17
promotes the use of other community resources	58	17	17	8
assist all patrons in selecting and using materials	75	25	0	0
assist patrons in developing and producing instructional materials	42	0	33	25
GROUP WORK WITH PATRONS				
The library/media center staff:				
conducts story hours for appropriate age groups	9	45	9	36
conducts book discussions with appropriate age groups	0	45	9	36

Table 10 (cont.)
Programs and Services

1 - as needed
 2 - at scheduled intervals
 3 - infrequently
 4 - never

	1	2	3	4
gives instruction in the use of library skills	36	27	9	27
gives instruction in the use of reference tools	36	36	9	18
gives instruction in the use of visual materials	35	27	9	9
gives instruction in the use of media equipment	45	36	9	9
shows films, filmstrips, etc. as part of the library/media center program	27	27	9	36
informs teachers and staff of new materials in the library/media center	64	36	0	0
conducts in-service training for teachers and staff in developing instructional materials	27	18	36	18
demonstrates special or new aspects of the library/media center to teachers and staff	73	0	27	0
confers with teachers and staff on strengthening the library/media center	55	18	18	9
serves as resource persons on curriculum committee	45	9	27	18
PUBLIC RELATIONS				
The library/media center staff:				
maintains clear and direct communication with the school administration	45	45	0	9
maintains close and cordial relationships with teachers and staff	64	27	0	9
arranges attractive and stimulating displays	55	9	27	9

Table 10 (con't.)

Programs and Services

- 1 - as needed
 2 - at scheduled intervals
 3 - infrequently
 4 - never

	1	2	3	4
publicizes new materials received in the library/ media center	73	27	0	0
publicizes new services	64	18	18	0
maintains contact and cooperative arrangements with public libraries	45	18	9	27

relation items were provided "as needed" or "at scheduled intervals" by 64% or more of the respondents.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Summary

The purpose of this study was to gather data on the current status of Library Media Centers in public day schools for the deaf to ascertain if the Standards for Library Media Centers in Schools for the Deaf published in 1967 were still appropriate for these current conditions.

To gather the data a questionnaire was developed that would furnish the necessary information after being completed by Library Media Center personnel or some other representative of the public day school for the deaf. The questionnaire was developed on the basis of the 1967 Standards, a questionnaire developed by Opocensky in 1975, and Evaluating Media Programs: District and School published by Association for Educational Communications and Technology in 1980. The questionnaire included the following sections: personnel, expenditures, facilities, collections, and programs and services.

The questionnaire was mailed to sixty-three public day schools for the deaf in the United States. Of this number twenty-five schools were eliminated because they did not meet the criteria of a public day school for the deaf. Of the remaining schools eighteen had Library Media Centers, fourteen schools did not, and six schools did not respond. The complete analysis of data was reported in Chapter IV.

It was anticipated that wide variation among the schools would exist and this was confirmed by the results. The availability of adequate personnel and materials varied greatly. The range of professional library media personnel was from zero to two. Some materials were held in large numbers while others were not as prominent. Expenditures ranged from none to several thousand dollars. Wide variation also existed between what the 1967 Standards suggested and what the respondents felt was necessary to efficiently operate their Library Media Center even though 15 years have passed since the Standards were written.

Conclusions

The conclusion presented here are the result of information provided by the respondents to the questionnaire on Library Media Centers in public day schools for the deaf.

Personnel

1. The professional personnel reported as being available in Library Media Centers were generally qualified as suggested by the Standards. However, less than half of the schools met the recommendations of one professional staff member for each 100 students or major fraction thereof. Some Library Media Centers were operating with part-time personnel with some of these not holding professional degrees.

2. Support personnel was not available in the numbers recommended by the Standards. Again, less than half of the schools provided any support personnel which was usually an aide. The recommendation of having a graphic artist, secretary, clerk-typist, and technician for every 100 students or major fraction thereof did not exist.

3. With the lack of support personnel most library media specialists were performing duties and services outside of the area of a professional employee. Many professional personnel reported doing maintenance and clerical duties.

Expenditures

1. The recommended dollar amounts as suggested by the Standards have long been surpassed by inflation. However, the average amounts reported for library books and materials in 1982 do not reach the amount suggested by the 1967 Standards. With inflation this means that these Library Media Centers are even farther behind than simply subtracting the differences.

2. Almost half of the respondents could not give any budget information for the four areas on the questionnaire. Of the schools that gave budget information approximately half could not give figures for all areas over the three year period requested.

3. A large majority of the Library Media Center directors did not develop the Library Media Center budget. This function was generally done by an administrative personnel.

4. Only half of the Library Media Center directors had control of Library Media Center expenditures. Again this function was performed by administrative personnel.

Facilities

1. Over three-fourths of the respondents rated the adequacy of their main library media facility as "average" or above. However, the numbers provided for the overall square footage and seating capacity would tend to indicate only a few students could use the Library Media Center at any given time.

2. Production areas in graphics, photography, printing and duplicating, recording, and television/video were provided by a large majority of the Library Media Centers. The use of these areas might be somewhat limited because of the reported lack of personnel.

3. Storage did not seem to be a large problem with ample space being reported for this purpose. However, some individuals did report storage of materials in places other than the Library Media Center, including the hall areas.

4. The Standards do suggest adequate carrels for student use. However, over half of the respondents indicated that carrels, whether wet or just for study, were not generally available. The reason for this could be the lack of usable space within the Library Media Center.

Collections

1. Professional collections in both books and periodicals were not available in the numbers suggested by the Standards. Although the majority of respondents indicated an "adequate" or above for their collection. It seems that teachers would probably depend on their own resources for information.

2. The book collections for student use also were not generally available in quantity suggested by the Standards. Only three schools met or exceeded the minimum Standards for books.

3. The other print collections did not meet the Standards.

4. Motion picture films, both 8mm and 16mm, were not generally available. Most of those responding indicated not maintaining 16mm film collections, including captioned films because they could obtain the films on loan at little or no cost.

5. The Standards view filmstrips as an excellent means of providing learning experiences for hearing impaired students. This idea was generally supported by the results of this research. Most schools indicated a more than adequate number of filmstrips to meet their needs.

6. Although the Standards did not provide any quantitative measure for television/video the schools of today, especially for the hearing impaired, have utilized this highly visual medium with their students. A majority of the respondents indicated an "adequate" or above rating for all of their video holdings including tapes and equipment. The exception to this trend was with reel-to-reel video tapes and equipment.

7. Another visual medium that was reported in widespread use was transparencies. This is another indication of schools for the hearing impaired relying on more visual means of communications.

8. Cameras of all types were readily available thus giving the students other forms of visual expression.

9. Most projection equipment was reported in adequate numbers for use by teachers and students. A lot of the equipment needs are based on varying aspects of curriculum needs and teachers preferences.

10. Although microcomputers have been shown to be useful with instruction for hearing impaired students half of the Library Media Centers did not have them available. It would seem that the availability of microcomputers is from the teachers themselves or department holdings.

Program and Services

1. Most services to patrons as suggested by the Standards were generally available in the Library Media Center. This included both group work

and individual work with patrons. In spite of generally inadequate numbers of personnel the service area was rated very high in providing for the needs of teachers and students.

2. Almost half of the respondents indicated communication with school administration on an "as needed" basis. By scheduling meeting times with administrators, the library media specialist is better able to communicate the needs of the Library Media Center within the framework of the curriculum. This also gives the administrator a chance to see what the Library Media Center does for the school.

Recommendations

The needs of Library Media Centers in public day schools for the deaf are many and varied as with other sectors of public education. To provide quality materials and services should be the ultimate goal for all Library Media Centers. To provide the consistency necessary in library media programs for the hearing impaired a set of realistic and forward thinking standards or guidelines need to be developed. The 1967 Standards were an excellent beginning for bringing all of the needs of the Library Media Centers in schools for the deaf into one publication. The Standards were modeled after the 1960 American Library Association Standards for Public Schools.

The need for a revision of the 1967 Standards may have passed. In the study by Opocensky (1975) one of the recommendations was "a revised edition of Standards for Library Media Centers in Schools for the Deaf should be published to provide a more definitive statement of realistic goals" (p. 220). The library media center in that study did not meet the Standards and neither do the schools in the study. The significant point to be made here is that 15 years

after the Standards were published Library Media Centers still have not reached the levels suggested by the Standards for providing a quality program for students and faculty.

From the results of this study the following results are given:

1. A new status study to determine the actual conditions of Library Media Centers in schools for the hearing impaired. It is evident that since Library Media Centers today cannot meet the requirements published in 1967 that the original Standards were not realistic. This is evident because of the large number of "adequate" responses reported in this study.

2. Status studies should be conducted covering the two major types of facilities for the hearing impaired, the day school and the residential school. This should be done to determine the differences in the needs of the two schools. The blanket approach attempted by the 1967 Standards did not prove to be effective.

3. Any new published set of recommendations for schools for the hearing impaired should consider using the major term guidelines instead of standards. Standards imply enforcement which is not possible while the term guidelines denotes goals for which the Library Media Center should work toward.

4. Any standards or guidelines that are developed should be made readily available to professionals in the field. The standards and guidelines are ineffective if the professionals do not know they exist. This seems to be the case with the 1967 Standards.

5. Any new standards or guidelines developed for Library Media Centers for the hearing impaired should take into consideration those individuals with

other needs. This study has indicated that there are gifted as well as multi-handicapped hearing impaired students. As diagnostic techniques have improved so has the ability to identify hearing impaired students with other needs. Provisions in any Standards or guidelines should be made for these individuals.

6. Administrative personnel in schools for the hearing impaired should be informed of the possible development of new standards or guidelines and their impact on learning for students. Since this research indicated that 44% of the responding schools did not have Library Media Centers administrators in these schools should be shown the educational value of Library Media Centers with support of written Standards or guidelines.

7. Professional personnel should be provided in adequate numbers to handle the effective operation of the Library Media Center in schools for the hearing impaired.

8. Support personnel should be available to assist with the everyday operation of the Library Media Center. To eliminate the overall shortage of support personnel students or volunteers could be trained to handle clerical responsibilities.

9. Library Media Center personnel should be open to new technological developments in education, such as microcomputers, in order to provide different channels of communication and learning for the student.

10. The Library Media Center director should participate in the development of the Library Media Center budget.

11. The Library Media Center director should have control over the expenditures of the Library Media Center funds.

12. Facilities in the Library Media Center should be attractive and functional providing the necessary space to accomodate the needs of the users.

13. Professional collections should be increased to provide teachers with the most recent materials on teaching and learning.

14. Print collections for students should be increased to provide the widest possible range of learning opportunities available. This should include books, periodicals, newspapers, and vertical file materials appropriate for grade levels within the school.

15. Program and services should be continually revised and updated to meet the changing needs of the patrons.

With the implementation of these recommendations it is believed that a better teaching and learning environment for the hearing impaired would result. Whether in a public day school or residential school, the need for effective and up-to-date material is never ending. For this to be accomplished it will take a total commitment of administrators, teachers, and Library Media Center personnel.

Suggestions for Further Research

This study was limited by constraints often inherent in survey research in that the researcher was obligated to report what was indicated by the respondents without knowing:

1. Accuracy of their reports.
2. What criteria the respondents used to respond to the questionnaire.
3. The validation of reports with on-site visitation.
- A. Suggestion for further research would be to:

1. Conduct on-site visits to school library media centers to observe conditions and verify data reported.

2. Construction of criteria statements to be used as guidelines by those responding to the questionnaire.

This study is viewed by this researcher as establishing, along with the Opocensky (1975) study, base line data for an area within Educational Technology and the education of the hearing impaired where there is a paucity of research and one that is in need of additional research.

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APPENDICES

Appendix A

Cover Letter - 1st Mailing

Dear Director:

How does your library media center compare with other library media centers in public day schools for the deaf? Does what you have in the library media center provide for the needs of the students and teachers? These questions and others are the focus of this questionnaire for library media centers in public day schools for the deaf in the United States. If you do not have a library media center please answer the questionnaire in relation to the materials and resources that are available in your school.

This questionnaire is based on the Standards for Library-Media Centers in Schools for the Deaf first published in 1967 and is an attempt to determine if these Standards are still current for library media centers in public day schools for the deaf. All information about individual schools will be kept completely confidential. The questionnaires are numbered for computing purposes only.

For your convenience a self-addressed, postaged paid envelope has been provided. I hope you will take a few minutes from your busy schedule to complete the questionnaire. Would you please return the completed questionnaire by June 18th? If you would like a copy of the results of this study please indicate with a check below and I will be happy to send you a copy.

Thank you for your time.

Cordially,

William A. Carter
Instructional Services Center
University of Oklahoma

☐ Yes, I would like a copy of the questionnaire results.

☐ No, I do not need a copy. My completed questionnaire is attached.

Appendix B

Cover Letter - 2nd Mailing

Dear Director:

On May 29 a questionnaire was mailed to you pertaining to the library media center and the resources available at your school. As of this date I have not received your completed questionnaire. I realize that the summer months are times for vacations and just generally being away from school, however, I do hope that you will take the few minutes necessary to complete this questionnaire. The information from this research is important for me as well as you since it will give us an up-to-date look at library media centers and resources that are available for students and teachers in schools for the deaf and hearing impaired.

Please complete the questionnaire if at all possible by July 9, 1982, and return it in the postage paid envelope. Your promptness will be greatly appreciated. If you have mailed a completed questionnaire please disregard this one.

Again, thank you for your time.

Cordially,

William A. Carter
Instructional Services Center
University of Oklahoma

Please note, your school's name was taken from a list of schools in the April 1981, and/or April, 1982 issues of the American Annals of the Deaf pages 125-191 and 107-158. In order to make this research inclusive and meaningful please complete the questionnaire as it pertains to your school.

Appendix C

Survey

DEMOGRAPHIC DATA

The information received from this questionnaire will remain completely confidential. After completing the questionnaire, please return it in the self-addressed stamped envelope. Thank you.

SCHOOL

Grade Range _____

Do you have a library/media center? Yes _____ No _____

STUDENTS

Total number of students _____ Male _____ Female _____

Age Range _____

Number of students who are:

Deaf-Hearing Impaired only _____
Deaf-Blind _____
Deaf-Mentally Retarded _____
Deaf-Learning Disabled _____
Deaf-Socially or Emotionally Disturbed _____
Deaf-Multi Handicapped _____
Deaf-Gifted _____

Please give the position title of the person filling out this questionnaire.

PERSONNEL

This section of the questionnaire is concerned with the personnel that make up the library/media center staff. Please list the position titles (not personal names) for each staff member and indicate their educational degree area, if any, by its number from this list below.

- | | |
|--|------------------------------|
| 1. Education/Subject Area
2. Deaf Education | 3. Library/Media
4. Other |
|--|------------------------------|

	None	AS	BS	MS	S.Ed.	Ph.D/Ed.D
A						
B						
C						
D						
E						
F						
G						
H						

Please circle the letter or letters after each statement to indicate those individuals, from the list above, responsible for that duty. If the particular duty is not performed, please check the not performed box.

		Not Performed
Confers with administrator and/or board concerning library/media	A B C D E F G H	—
Participates in curriculum development and revision	A B C D E F G H	—
Designs instructional materials	A B C D E F G H	—
Helps to develop and implement proposals for federal projects and programs	A B C D E F G H	—
Coordinates selection and evaluation of learning materials and appropriate equipment	A B C D E F G H	—
Conducts in-service for faculty and staff	A B C D E F G H	—
Instructs students in developing library/media skills	A B C D E F G H	—

Catalogs materials	A B C D E F G H
Handles orders, rentals, and loans	A B C D E F G H
Maintains and repairs equipment and materials	A B C D E F G H
Schedules and distributes both hardware and software	A B C D E F G H
Duplicates educational materials	A B C D E F G H
Serves teachers and students as a resource person	A B C D E F G H
Produces graphic, photographic, audio, and video materials	A B C D E F G H
Provides storytelling experiences	A B C D E F G H
Introduces materials of special interest to classes	A B C D E F G H
Directs and promotes the use of instructional television	A B C D E F G H
Operates office machines and equipment	A B C D E F G H
Locates bibliographic information	A B C D E F G H
Reserves instructional media	A B C D E F G H
Organize the library/media center collection	A B C D E F G H
Promotes the use of microcomputers	A B C D E F G H
Other _____	

EXPENDITURES

This section of the questionnaire is concerned with the budget and the amounts allocated for the several areas of the library/media center. In part one, please give the numerical amount for each area for each year.

	Expenditure Last Year (80-81)	Expenditure This Year (81-82)	Anticipated Expenditure For Next Year (82-83)
Library books and materials			
Audiovisual materials			
Audiovisual equipment (new)			
Audiovisual equipment (replacement)			

In part two, please mark YES or NO with a check (✓) for each question. In the last two sentences please list the individuals responsible for that particular duty.

	YES	NO
Is a separate library/media center budget prepared?	—	—
Does the library/media center director have responsibility for the development of the library/media center budget? If not, who develops budget? _____	—	—
Does the library/media center director have control over the expenditure of the library/media center funds? If not, who controls expenditure? _____	—	—

FACILITIES

This section of the questionnaire is concerned with the strengths and weaknesses of the physical components of the library/media program. Please rate each statement in relation to the adequacy of your facility for your particular school setting and give the approximate square footage and seating capacity for each area. The following scale should be used for your answers.

- 1 - Poor or Non-Existent
2 - Below Average
3 - Average
4 - Above Average
5 - Superior
6 - Non-applicable

[illegible]

SPACE ALLOCATION	1	2	3	4	5	6
Furnishings						
Moveable cabinets						
Cabinet storage for media materials						
Furnishings provide good reading and study conditions						
Enough tables and chairs to meet the needs of students and teachers						
Shelving						
Moveable carts for need in distribution						
Study Carrells						
Wet Carrells						
Other _____						

For the following statements please check (✓) YES or NO.

Location

- The library/media center is centrally located
 The library/media center has outside
 accessibility for extended hours

YES

NO

—

—

—

—

COLLECTIONS

This section of the questionnaire is dealing with the materials and equipment collection of your library/media center. Please indicate the quantity and quality (excellence) of those items for your situation by placing a check (✓) in the appropriate column. The following scale should be used for your answers.

- 1 — superior
2 — more than adequate
3 — adequate
4 — less than adequate
5 — none

[illegible]

To be filled out by Library/Media Specialist only. If there is no Library/Media Specialist, please leave blank.

PROGRAM AND SERVICES

The programs and services listed do not imply that they are all available at all schools. If there are some programs and services that you offer that is not included, please add them. Please indicate with a check (✓) on the following scale of the programs and services that are available to patrons of your library/media center. The following scale should be used for your answers.

- 1 - as needed
- 2 - at scheduled intervals
- 3 - infrequently
- 4 - never

INDIVIDUAL SERVICES TO PATRONS	1	2	3	4
The library/media center staff:				
provides reference services				
provides reading guidance				
provides guidance in viewing and listening				
provides individualized programs according to needs				
provides resources for different levels of maturity and ability				
provides for cumulative growth in library/media skills				
provides development of independent study habits				
promotes the development of desirable attitudes toward reading and the use of media				
promotes the use of other community resources				
assist all patrons in selecting and using materials				
assist patrons in developing and producing instructional materials				
Other _____				
GROUP WORK WITH PATRONS				
The library/media center staff:				
conducts story hours for appropriate age groups				
conducts book discussions with appropriate age groups				
gives instruction in the use of library skills				
gives instruction in the use of reference tools				
gives instruction in the use of visual materials				
gives instruction in the use of media equipment				
shows films, filmstrips, etc. as part of the library/media center program				
informs teachers and staff of new materials in the library/media center				
conducts in-service training for teachers and staff in developing instructional materials				

GROUP WORK WITH PATRONS	1	2	3	4
demonstrates special or new aspects of the library/media center to teachers and staff				
confers with teachers and staff on strengthening the library/media center				
serves as resource persons on curriculum committee				
Other _____				
PUBLIC RELATIONS				
The library/media center staff: maintains clear and direct communication with the school administration				
maintains close and cordial relationships with teachers and staff				
arranges attractive and stimulating displays				
publicizes new materials received in the library/media center				
publicizes new services				
maintains contact and cooperative arrangements with public libraries				
Other _____				

Appendix D

Schools Responding to the Questionnaire By Their Number

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