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Mohammed Hossein Morovati
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DEVELOPING A MODEL FOR ORGANIZING AND
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ANDREWS UNIVERSITY, ED.D., 1978

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Andrews University
School of Graduate Studies

DEVELOPING A MODEL FOR ORGANIZING
AND ADMINISTERING INSTRUCTIONAL
MEDIA CENTERS FOR TEACHER
EDUCATION IN IRAN

A Dissertation
Presented in Partial Fulfillment of
the Requirements for the Degree
Doctor of Education

by
Mohammed H. Morovati
June 1978
DEVELOPING A MODEL FOR ORGANIZING AND ADMINISTERING INSTRUCTIONAL MEDIA CENTERS FOR TEACHER EDUCATION IN IRAN

A dissertation presented in partial fulfillment of the requirements for the degree Doctor of Education

by

Mohammed Hossein Morovati

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April 19, 1978

Date Approved

Dean, School of Graduate Studies

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ABSTRACT

DEVELOPING A MODEL FOR ORGANIZING
AND ADMINISTERING INSTRUCTIONAL MEDIA CENTERS
FOR TEACHER EDUCATION IN IRAN

by

Mohammed Hossein Morovati

Chairperson: Bernard M. Lall
ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University
Department of Education

Title: DEVELOPING A MODEL FOR ORGANIZING AND ADMINISTERING INSTRUCTIONAL MEDIA CENTERS FOR TEACHER EDUCATION IN IRAN

Name of researcher: Mohammed Hossein Morovati
Name and title of faculty adviser: Bernard M. Lall, Ph.D.
Date completed: April 1978

Problem

The purpose of this study was to develop a model for organizing, administering, and providing physical facilities for instructional media centers for institutions of teacher education in Iran. The major problem is that the institutions for teacher education in Iran currently do not have guidelines for management of instructional media centers. However, it is a recognized fact that in order to provide quality training for teachers of tomorrow such provisions must be made.

Procedure

This is a descriptive study covering the philosophy, the role, major administrative structures, and needed personnel for institutional
media centers in Iran's education institutions. In order to obtain necessary data for this study, current related literature was reviewed to ascertain the newest trends and most promising practices in development and administration of the media centers. A number of instructional media centers were visited and necessary information, schematic diagrams, organizational charts, sketches of work areas, lists of materials and equipment were secured from directors of these centers. Based on this information, the study was organized and the tentative design was developed to provide a model for instructional media centers for teacher education in Iran.

Conclusions

After careful analysis of the data gathered, the following conclusions were reached by the researcher:

1. The philosophy of the proposed instructional media centers for teacher education in Iran should provide variety of services to students and teachers.

2. The instructional media centers should be considered mainly as a service facility with the major goal being that of supporting the diverse needs of the instructional program, and thereby providing for the needs, abilities, and interests of all concerned within the institution.

3. The proposed model would provide a framework through which some of the inadequacies of the present system of teacher education may be ameliorated.

4. The instructional media centers should centralize the location of procurement and control of all materials to their maximum use.
5. The selection of qualified personnel, development of organizational structure and following proven management techniques would help the institutions for teacher education in Iran to develop an efficient instructional media program.

6. The functions, qualifications and proper job descriptions of the instructional media director should be clearly defined for effective and efficient operation.

7. Further research should be undertaken on means and methods of providing opportunities for training of instructional media directors to organize and manage instructional media centers in schools in Iran at all levels.

Recommendations

On the basis of the literature research and careful analysis of the materials presented, the following recommendations are presented for consideration:

1. The institutions for teacher education in Iran should provide an instructional media center on each campus, with a media program of highest caliber representing a combination of human and material resources.

2. Based on the functions of media centers, the following organizational structures should be developed:
   a. An institutional instructional media committee, established for policy formation, central coordinating, and administration of facilities and programs.
   b. A departmental instructional media committee, established for the outlining and implementation of the media programs.
with in each department of the institution.

c. A centralized organizational pattern, established to serve as the guidelines for these media centers.

3. Adequate physical facilities and sufficient equipment should be provided to carry out both the present programs and all future needs.

4. The instructional media center should provide a core collection of materials and associated equipment needed to insure adequate support of the media program. The primary criteria for selection of the equipment and materials should be the value of the content relative to the needs of the users.

5. A proposed time line of events should be followed in order to maximize the implementation of the program.
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CHAPTER I

NATURE AND PURPOSE OF THE STUDY

Introduction

Iran, the "homeland of the Aryans," appears unique among the nations of the world in terms of historical and cultural continuity. At present, Iran is adjusting herself to the modern age and making swift progress in most aspects of her social life, notably in the educational systems which have undergone significant changes since 1963.

His Imperial Majesty, Mohammed Reza Pahlavi Aryamehr, in his book, The White Revolution, stated that "A great social revolution has taken place in the country that should be regarded as the starting point of a whole new era ... the principles of this revolution constitute the character for our future society" (quoted in Executive, 1967, p. 82). In the third Ramsar Education Conference, the Monarch stated: "Our first national priority is to protect its boundaries. Our next concern is educational development which will take priority over all other activities" (Mashayekhy, 1975, p. 1).

Since 1963, therefore, the most spectacular advances made in Iran are directly related to higher education. This is a direct result of the reforms implemented by His Imperial Majesty as a part of the "White Revolution" on January 26, 1963. These reforms represent an integrated social and economic program whose ultimate objective is to lay foundations for a society compatible with and responsive to the
demands of the modern times. The shift from an agrarian to an industrial society, from the rural to the urban way of living, has been a major concern for all administrators, especially for educational administrators. Reforms were adopted in an attempt to adjust the educational system to the new and dynamic spirit. Between 1967 and 1974 the number of higher educational institutions in Iran rose from 54 to 156 (Tayeb & Oladzad, 1974, p. 10). The people of Iran are demanding better higher educational programs in keeping with their economical and social progress; therefore, careful educational planning and construction of new facilities has become necessary.

The improvement of technology for current educational programs, while allowing for changes in teaching methods and the use of media in teaching, is one of the great challenges that affect education today. In the preface to the bulletin of the University for Teacher Education, Chancellor Mashayekhy indicates that education is an important and necessary part of Iran's future. The challenge to the educators is to carry on that educational process which is deemed most viable. Of practical necessity, these educational changes must take place within both existing and new facilities through curriculum, instructional media, and communication, and through dedicated teachers, all of which must be prepared to use the known methods of today, and the high priority progressive methods of tomorrow in Iran (1975, p. 2).

Johann Heinrich Pestalozzi (1746-1827), in the book, *How Gertrude Teaches Her Children* (1966), presented his educational philosophy that all learning is based on sense impression, that clear thinking must be based on accurate observation of real objects, and that indeed words and ideas only have meaning in relation to concrete things.
He reinforced this idea by saying that "there are two ways of instructing, either we go from words to things, or from things to words. Mine is the second method" (p. viii).

Brown, Lewis, and Harcleroad, professors and consultants in educational media, state that "the use of teaching resources in education has a dual purpose: to improve learning and teaching and to permit teachers and students to interact as human beings in a climate where men control their environment for their own best purposes. That is, when we plan to use media--books or films, projectors or graphics, cassette or television receivers--an interest in students and their goals must motivate and guide our efforts" (1973, pp. 3-4).

Media services have become deeply involved in education within recent years, and there is every evidence that this trend will continue at its present momentum and will increase progressively as time passes. The teacher education institutions, like scores of institutions of higher learning in Iran, must decide for themselves how to organize and administer their instructional media centers and, at the same time, develop a working relationship with the administration of the local school system. The purpose of this study is to formulate one such plan for the organization and administration of media centers in Iran.

It should be pointed out that changes in educational systems will accelerate in the immediate future, affecting the very nature of education, educational program development, concepts of teacher preparation, administration and development of instructional media centers, administration of education, staffing, et cetera, to meet the challenges of a rapidly developing nation.
Statement of the Problem

Iran, like all other nations, is concerned with the development of the country in order to make it a better place in which to live. The emphasis is on putting Iran's human resources, its excellent natural resources, and its fine and stable government to productive use. Iran recognizes the fact that educational expenditure is truly an investment. Therefore, the king and his government give education second priority.

The government and the nation's top educators feel that technology and media will play a significant role in the days to come in the process of educational development. However, up to now, there has existed a desperate need for development of instructional media centers for schools of higher education, public and private school systems, and technical institutes. The question arises: how are these much-needed instructional media centers to be organized and administered?

Purpose of the Study

Since the nation of Iran is anxious to develop its educational program; since instructional media will play a vital role in this developmental process; and since there is no model for instructional media centers or its services available to the institutions of higher education and to the scores of elementary and secondary schools in Iran, both in the public and the private sectors; it is the purpose of this study to:

1. Develop a model for organization of an instructional media center for the teacher education institutions in Iran, with a view to serving the needs of these institutions and providing help to all other emerging instructional media centers throughout the nation.
2. Plan an administrative structure for this instructional media center which will provide a smooth flow of operation, and at the same time be an exemplary structure for all other emerging media centers.

3. Provide facilities planning which will provide for efficient media practices, utilization, and distribution of space and equipment.

What is envisioned here is not merely a trend toward a more thorough integration of media services, but a deeper and more systematic involvement of media administration in the light of the total planning of instructional systems.

Need for the Study

Because educational development is considered a top priority in the national development of Iran, and because instructional media centers play a significant role in the development of educational programs in Iran, the need for this study cannot be overemphasized. The nation's top educators recognized this fact. Now it is up to professional educators to come up with the answers.

The growing number of pupils attending universities and colleges in Iran show the great demand being placed on education. The instructional practices need to be revamped in order to meet this demand, and instructional media will play a vital role in the improvement of instruction. Hence the significance of this study becomes more apparent (Brown, Lewis & Harcleroad, 1973, p. 3).

In the United States, Brown, Norberg & Syrgley (1972), Erickson (1968), Dale (1968), Davis (1971), and Wong (1974) published books, and Corbacho (1963), Grassmeyer (1966), Swiger (1968), and Farris (1973), conducted studies in which they provided information pertaining to instructional media centers and how to administer them. In Iran,
however, only limited information is available on instructional media and administration of media programs. The suggestive developmental plans should serve as a guide for future instructional media centers and the administration of such for teacher education programs in Iran. Therefore, this study proposes a model for the administration, organization, and physical facilities of instructional media centers that will be unique for the teacher education programs in Iran.

**Delimitation**

This study will be limited to the development of a media center and administrative model for teacher education institutions in Iran. In the development of this model, an extensive review of literature related to the subject available in the United States of America will be the source information.

**Questions for Consideration**

In order to satisfy the purposes of this study as effectively as possible, the findings should be directed toward answering questions related to the establishment and administration of instructional media centers. The following questions are projected with a view toward providing pertinent answers through this study:

**Questions Relative to an Instructional Media Center**

1. What are the criteria of an effective instructional media center?
2. What kinds of facilities are necessary to house an instructional media program?
3. What kinds of budgetary provisions must be made to develop a model instructional media program?
4. What are the functions of the media centers?

Questions Relative to the Administrative Structure

5. What types of organizational structures are found in media centers in the United States?

6. What patterns of organizational structure are most valuable for teacher education instructional media centers?

7. What are the roles of various instructional media personnel, especially the role performed by the director and associate directors?

8. What job descriptions and job specifications are provided for these personnel?

In the process of gathering necessary information for this study, new concepts emerged in the establishment and administration of instructional media programs for teacher education in Iran.

Definition of Terms

The following definitions may serve to clarify significant terms used in this study.

Administration. The American Association of School Administrators defines administration as the "Total of the processes through which appropriate human and material resources are made available and made effective for accomplishing the purpose of an enterprise" (Campbell and Gregg, 1957, p. 17).

Allocation of Space. The space assigned for a specific purpose.

Audiovisual Center. A term used interchangeably with instructional media center; a small scale center for the distribution and
production of educational materials concerned with audio and visual means of communication.

**Audiovisual Materials.** All materials and equipment concerned primarily with utilizing audio and/or visual media for teaching and learning purposes.

**Carrel.** A piece of equipment in the instructional media center designed for individual study.

**Educational Media or Instructional Materials:** Any medium of communication used by teacher and pupil to advance and improve learning.

**Flexibility.** A characteristic of building design or of an educational program which facilitates changes in the use of the design or program.

**Hardware.** The physical, mechanical, or electronic pieces of equipment which are used both to produce and reproduce materials utilized either in the classroom or in individual study situations as part of the learning process.

**Instructional Media Administrator/Director.** The supervisor of an instructional media program for the entire educational system of teacher educational programs.

**Instructional Media Center (IMC).** "A place where ideas, in their multimedia and diverse forms, are housed, used, and distributed to classrooms and laboratories throughout the school" (Beggs, 1965, p. 47). For the purpose of this study, the instructional media centers were the learning centers established by each institution of teacher education in Iran.

**Instructional Material Specialist.** A professional staff member competent in the selection and use of all types of instructional materials.
Media Program. All the instructional and other services furnished to students and instructors by instructional media centers or audiovisual centers and their staffs.

Micro Teaching. Video recording of both teacher and students in a lesson situation for later evaluation and discussion.

Model. A pattern of something to be made or reproduced. "A representation that mirrors certain chosen properties. It serves as a replica, substitute, or simulation of the entity being represented. It is always an approximation, usually a simplification, and hopefully an aid to insight" (Borko, 1967, p. 36).

Multi-media. A variety of audio-visual media and experiences correlated with additional instructional materials to reinforce the value of each other.

Physical Facilities. The combination of the school plant, equipment, materials, and furniture. It may also include the school site.

Service. The performance of a task for the benefit of others. This might be voluntary, by request, or an assigned responsibility characteristic of a position.

Software. The programs and materials presented by means of instructional devices and machines.

Static Visual Media. Still opaque and/or transparent pictures.

White Revolution. On January 26, 1963, His Imperial Majesty, Mohammed Reza Pahdavi Aryamehr, submitted a "Six-Point Reform Programme" to a nationwide referendum, later expanded to nineteen points. They constitute the basic principles of the political, social and economic policies of Iran (Executive, 1967, p. 82).
Wet Carrel. A study carrel containing wiring so that electronic equipment can be used.

Organization of the Study

After careful consideration and analysis the researcher has divided the remaining portion of this study into the following four chapters:

Chapter 2 presents the review of literature relative to the problem. It provides the analysis of information relative to various models of organizations, administrative structures, facilities, planning, and materials and equipment of instructional media centers in the United States of America.

Chapter 3 describes the procedures and methodology that has been used in the completion of this study. It includes the procedures used for collection of data, the type of research, and the selection of a panel of experts who examined this study and provided supporting comments.

Chapter 4 provides a brief overview of the history, people, government, cultural contributions, economic factors, educational programs, and teacher education programs in Iran, and a brief report on media centers which were visited in the United States of America.

Chapter 5 offers the recommended model regarding philosophy, purposes, organization, and management of the instructional media centers for teacher education in Iran.

Chapter 6 presents a summary of findings, answers to questions raised, and conclusions.

A comprehensive bibliography has been presented, and the appendices include letters, organizational charts, and plans of some of the media centers that have been visited by the researcher.
CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

The world has witnessed some drastic changes in living styles and conditions during the last thirty-five years. The mass media and technology have acted as catalytic agents in the process of change in various field, and education is no exception. As Paul Heimann (1963) pointed out:

Masses have become shouldered with responsibilities and are conscious of educational needs which hitherto arose only in the training of an elite. This process which Karl Manheim has described as the "fundamental democratization of our society, can bear fruit only if the masses are provided with educational and teaching aids of a completely new type."

Mass media are, in fact, the catalyzing agents in a vast process of cultural change, which they reflect and constantly further and modify. It is precisely this which makes them so outstandingly important for education, regardless of the direction in which their influence may radiate. They have contributed to the development of a revolutionary situation in education which makes demands on the general educational perception of modern teachers--demands which cannot be ignored. (pp. 8-9)

Urban (1969) recognized this invasion of technology on education and said:

Today, life in the classroom is far more complex than ever before. The curriculum has expanded and it is under great pressure to change. The recent explorations to the moon, as an example, will have a tremendous impact on the current teaching of the universe, astronomy, and space exploration. The classroom teacher cannot to the job alone. (p. 25)

Isenberg (1969) suggested that the extent to which one will be
able to cope with the change and explosion of knowledge and technology will depend upon:

The degree to which we succeed in helping children meet the demands of an enormous explosion of knowledge and in developing skills for application of knowledge will depend on how well we deploy people, places and things in restructuring the teaching-learning processes.

As we move steadily towards greatly individualization of learning opportunity, we edge further away from the self-contained classroom and the old study hall. Instead we look for an instructional system that provides the best opportunities for discovery by both individual and group effort. (p. 27)

Maximum utilization of the resource centers will give each student unique experiences in learning. Research and discovery skills will develop to a high level thereby providing what we know to be most important learning possible for students in today's world, the ability to seek, put, relate compare, and analyze information and apply knowledge. If we are successful in fostering these attitudes, then we are preparing students to live in the world we described. (p. 28)

Both as a consequence and as a precursor, the instructional media center concept has an impact on education.

**Philosophy of the Instructional Media Center**

Education involves the intellectual, physical, and social skills of pupils. The learning process begins with a clear statement of desirable human values as shown in the attitudes and actions of students. The teacher and media specialist must be aware of these characteristics which can guide most effectively the learner's development. Then the educational experiences which will be most helpful must be identified and the most effective tools and materials located. The pupil needs to develop a spirit of inquiry, self-motivation, self-discipline, and self-evaluation. He will need to master knowledge in many disciplines and develop a number of complex skills. Ultimately, he must communicate his ideas with his fellows.

Wastenberg and Gerhard (1969) presented the following basic
premises underlying the purpose of education:

Education is a process in which pupils, teachers and curriculum interact. This process of interaction results in desirable changes in pupil's behavior. Goal areas of education are knowledge, tool skills, thinking processes, self-direction, social effectiveness and human values. (p. 17)

The instructional media center plays a vital role in this entire process since the media found here conveys the information, affects the message, controls what is learned, and establishes the learning environment. These media will help to determine what the pupil sees and what his attitude will be toward the world in which he lives. For this reason, it is important that the media specialist participate actively in shaping the learning environment and the design of instruction. Every media facility, piece of equipment, book, or other material should be selected, produced, and used so that students are challenged to a dynamic participation in a free, exciting and enriched life.

The use of the instructional media center is one of the best tools available to begin quality education. But, if it is to really fill this goal, it must be flexible. Since no two students learn and progress at the same rate, media centers should meet the needs of all students at their own rate.

Instructional media centers enable students and teachers to approach and use the multimedia or intermedia materials in a unified program. The availability of many materials in a variety of formats gives students and teachers an opportunity to select the media best suited to answer specific needs.

The philosophy of the instructional media center is one of service to both the student and the teacher. For the student, the
media center provides materials for learning in which he may develop his skills for obtaining higher academic goals, and progress in areas that often are initiated by other interests and needs. This can be done through remediation, reference, clarification, and motivation. For the teacher, the instructional media center provides new ideas, concepts, and services which support, complement, and expand the work accomplished in the classroom. The media centers help the instructor in the development of new materials to aid instruction, enrich instructional programs, and provide in-service training in new materials and media.

**History of the Instructional Media Center**

Instructional media began its modern development with the establishment of several school museums in Saint Louis (1905), Reading (1908), and Cleveland (1909 (Conti, 1964, p. 1). At the same time, it developed in institutions of higher learning, as explained by Saettler (1953):

> Organized visual education first appeared in colleges and universities in conjunction with extension divisions that were formed in the early 1900's. Among functions of the University of the State of New York (established in 1891), for example, was the distribution of still pictures and lantern slides. The Bureau of Visual Instruction was established by the extension department of the University of Texas in 1910. By 1914 similar departments were operating as extension activities in 5 other universities in the country. (p. 1)

Instructional media continued a steady, but not significant, growth from the early 1900s until the beginning of World War II (Conti, 1964). By the 1930s and 1940s media services included on-campus activities and became known as audiovisual centers.

Brown (1965) stated: "The development of an audio-visual
movement in education quickened after World War II" (p. 13). In the 1950s and 1960s, because of their rapid development, these centers included primarily educational materials and services and were known as instructional media centers (p. 304). Administrative and organizational patterns developed during this time are very much in evidence in these educational systems since leadership was needed to harness their resources, point out their advantages, and get them into operation.

A study by McPherson (1946) described the development of a curriculum in Kern County, California, and its use as the basis for determining the objectives of the instructional media program. Financial support, in-service education for teachers in utilization of materials, and the role of the instructional media director received emphasis in McPherson's study.

Davidson (1950) conducted a study in which he investigated administrative problems in the utilization of materials in public school systems of west Texas. He found with few exceptions that materials were being used ineffectually, largely because of insufficient budgets, scarcity of well trained directors, and lack of teacher preparation in the use of materials.

In 1963, the Department of Audiovisual Instruction, now the Association for Educational Communication and Technology (AECT), recognized that:

A new kind of professional will be required to provide leadership in design, implementation, and evaluation of programs in education which make the fullest use of new media. The functions performed by this leader and the resources he brings will be among the essential determinants of success or failure in tomorrow's schools. (Morris, 1963, p. 11)

The Illinois Curriculum Program stated that every school would require
the services of a regularly certified teacher who had professional preparation in educational media (Illinois, 1963, pp. 102-103). Margaret Nicholson (1964) listed the staff of an instructional media center as "consisting of a director or head professional staff, technicians, clerks" and other aids (p. 42). Church (1970) indicated:

In colleges and school districts, throughout the nation, organizations have been established for the administration of instructional materials and to facilitate curriculum planning. These organizations bear such names as curriculum laboratory, instructional materials center, teaching aids laboratory, educational communications center, new media center, learning resources center, or various combinations of these terms. The functions of some of these organizations are divided between audio-visual centers and educational or professional libraries. In many of these organizations there is a definition of administration of instructional materials that is consistent with this statement: The administration of instructional materials, embraces the organization and leadership for making instructional materials available for use in planning the guidance and nurture of student growth. (p. 1)

What Instructional Media Is

Instructional media is only one of a number of names found in the literature. Others include library materials, educational materials, educational communications, learning resources center, instructional technology, educational technology, technical media, audiovisual materials, or instructional media. The common expression, "Words can mean whatever we choose them to mean, neither more nor less," suggests that all these terms can be used interchangeably for instructional media.

An instructional media center is described by Burget (1967) as follows:

It is as much an attitude and an approach to the problems that educators encounter as it is a structure, a collection of teaching materials, and an assemblage of professional, technical, and service personnel. In practice, it is a nerve center where educational questions can be studied and where the talents and ideas of many can be combined and translated into materials, equipment, and
programs that can be used successfully by teachers and students. (p. 4)

David Beggs (1965) defined the instructional media center as "a place where ideas, in their multimedia and diverse forms, are housed, used, and distributed to classrooms and laboratories throughout the school" (p. 47). The media center is a place where ideas can grow, be exchanged, and find expression, a place full of the spirit that leads students and teachers to continue to improve. The center has advantages for both the teachers and the pupils as it facilitates the teaching-learning process.

In a highly informative doctoral study conducted by Swiger (1968), the instructional media center was identified as follows:

Learning Resource Center, or Learning Materials Center, or Learning Center appears to be a modern and growing concept in which both print and non-print software are acquired, catalogued, and distributed for faculty and student use . . . .

The media center provides the following services: scheduling materials and equipment, informing the faculty about hardware and software, maintaining files on sources of new materials, purchasing hardware and software . . . and providing consultant, in-service and orientation services to the faculty. (pp. 180-181)

A joint committee of the American Association of School Librarians and the Department of Audiovisual Instruction of the National Education Association (1969) has also defined the media center. In cooperation with an Advisory Board consisting of representatives from twenty-eight professional and civic associations concerning instructional media centers, they prepared and presented the following standards:

A learning center in a school where a full range of print and audiovisual media, necessary equipment, and services from media specialists are accessible to students and teachers. (p. xv)

The media center's program, collections, and environment provide a broad spectrum of learning opportunities for large and small groups of students as well as for individual students. The focus
of the media program is on facilitating and improving the learning process in its new directions—with emphasis on the learner, on ideas and concepts rather than on isolated facts, and on inquiry rather than on rote memorization. (p. 2)

Purpose of the Instructional Media Center

In a recent study by Ellsworth and Wagener, quoted by Davis (1971), a media center was explained as follows:

The major purpose of the instructional materials center is to serve the established aims of the total educational program by (1) providing a rich variety of materials, recordings, still and motion pictures, filmstrips, and other audio-visual materials and resources, for use by teachers and students as individuals and in groups; (2) offering leadership in developing techniques for the use of various materials by teachers and students; (3) making available facilities, services, and equipment necessary for the selection, organization, and use of instructional materials; and (4) furnishing facilities for an assistance in the production of instructional materials and displays. (p. 15)

The use of instructional media is a true part of the modern curriculum existing to help the teacher individualize instruction and advance and improve learning. How effective a medium is in accomplishing a desired educational objective determines the selection of the appropriate educational media to use in any particular teaching situation. When the materials, services, and facilities available in a media center effectively support a schoolwork program of creative inquiry, only then has it reached maturity. An intelligent combination of these collective and individual learning activities guarantees that each student will receive a core of understandings and *ills which he can adapt to his personal pattern of discovery (p. 33).

As noted earlier, the traditional principle medium for implementing a curriculum involves a teacher who presents knowledge to the student. The employment of educational media other than the live teacher may enhance or supplement the teacher's efforts and provide
optimal learning with a minimum of routine personal involvement by him. Therefore, the teachers, as educational media specialists, "need to be concerned about and involved in the development and implementation of alternative learning systems" (Saretsky and Silber, 1975, p. 56).

Today, the modern teacher is doing less direct group instruction and taking on more and more the role of planner and organizer of learning experiences and stimuli. He helps the students become their own best teachers and develops in them a desire for continued learning (Dale, 1973, p. 5).

Maxwell (1975) declared that instructional media centers have the following functions:

1. Service to students;
2. Training; and
3. Research and program development. The primary mission of the center is to help the students become more independent, self-confident and efficient learners in order that they become better able to meet the academic standards, and successfully attain their own educational goals. (p. 463)

The American Library Association and the National Education Association (1970) have agreed upon the following purposive definition for a center. The center provides:

1. Consultant services to improve learning, instruction, and the use of media resources and facilities;
2. Instruction to improve learning through the use of printed and audiovisual resources;
3. Information of new educational developments;
4. New materials created and produced to suit special needs of students and teachers;
5. Materials for class instruction and individual investigation and exploration;
6. Efficient working areas for students, faculty and media staff;
7. Equipment to convey materials to the student and teacher. (p. 4)

Thus, the instructional media center is seen as a masterful blend
of all concerns relating to education.

The Michigan Department of Education (1971) considered media centers from the following point of view:

The rationale for establishing regional media centers is to make maximum use of minimum resources. . .

Regional Educational Media Centers--A facility which provides basic educational services in educational programs, technological equipment, instructional print and non-print materials, and training and promotion in their use, to local school districts. (p. 12)

An instructional media center is responsible for educating teachers to meet the challenges of the community they serve. In addition, the center will provide extension services to interested persons and institutions insofar as the resource center can accommodate their needs or desires. Thus the instructional media center is in a unique position of leadership, placing the latest educational technology before both the learner and the instructor.

The major specific purposes of the instructional media center, as stated by Jerry Herman (1969), are as follows:

1. To combine a variety of specialized services in such a way that teachers are given maximum assistance in the enrichment of the educational environment of the individual student.

2. To organize the mechanical aspects of the specialized services in such a way that maximum information is given and motivation promoted, while a high degree of efficiency is maintained and the cost of such services is minimized.

3. To provide such materials, supplies, demonstrations, and assistance as are deemed necessary for the continuous enrichment of curricular offerings, while giving foremost consideration to the varied interests, abilities, achievements, and maturities of the students to be served.

4. To provide a single clearinghouse wherein teachers and students are provided speedy and easy access to the variety of instructional materials, equipment, and supplies which are not readily housed or controlled at the local building level.

5. To locate, collect, arrange, catalog, and distribute materials,
information, and supplies which are pertinent to and amplify upon the curricular offerings.

6. To assist teachers to help children grow in knowledge and skill by generating an understanding of and desire for expanded learnings.

7. To provide advisory services in the procurement, preparation, distribution, uses, evaluation, storage, and maintenance of supplies and equipment.

8. To promote, through the media of planned in-service education programs, such understandings as are necessary to motivate maximum teacher and student use of the variety of enrichment services available. (p. 2)

Functions and Services of the Instructional Media Center

The instructional media center provides learning opportunities for large groups, small groups, and individual students. The emphasis of the instructional media center is on the learner, on ideas and concepts instead of isolated facts, on inquiry instead of rote memorization. Functions of the instructional media center include guiding the student in studying effectively, thinking objectively, and developing an inquiring interest in and enthusiasm for exploration and research. Since the present trend is to move away from textbook and teacher dominated instruction, the instructional media center must support, compliment, and expand the work of the classroom.

Taylor (1969) lists the educational functions of instructional media centers as follows:

1. Large group instruction and student presentation
2. Small group conferences and media projects
3. Independent study and exploratory examination of materials
4. Production of materials for original communication
5. Reading, listening, and viewing skill development
6. Guidance in the use of school and community educational resources
7. Preview and selection of curricular related materials
8. Preview and selection of materials appropriate to student interests and maturity levels
9. Preview and selection of materials for faculty professional growth
10. Inservice programs on instructional media. (pp. 52-57)

The services and facilities of the instructional media center provide the student with opportunities to experience success and accomplishment through the materials they create and produce. The instructional media center should provide information about new materials, make them easily and quickly available, and inform teachers of recent developments. The student should be instructed in the uses and resources of the instructional media center.

Brown (1955) summarized the function of the instructional media center as follows:

The Learning Center is based on the premise that learning is its true focus, but it is also based on other premises or assumptions. One of these is the change from storage to service--materials out--service in. Another is that the teacher will manage the learning of the student and the learning center will make its contribution by offering materials and services which will facilitate learning. Another assumption is that although the student is responsible for more of his own learning, the school is ultimately responsible for the student's success or failure. . . . Another explicit premise rather than a thing or a place. (p. 6)

William Trow (1969) cautions the teacher regarding the use of media:

The new media will not be particularly effective so long as they remain mere adjucts, an intrusion, a fifth wheel of the educational conveyance. The new parts need to be integrated into a man-machine system, and this requires clearcut readjustments in organization and procedure. . . . The educational technologist envisions, not machine produced robots, but a smoothly functioning system in which the several processes it employs are all operating to turn out its product and that product is educated people. (pp. 86-88)

In the above case, the media are not given their proper place in the instructional process and that inhibits the media from achieving their maximum potential.
Role of the Instructional Media Center Administrator

The success of the media center depends upon the skill and the competency of the administrator, leader, or director. The director of the instructional media center must employ his leadership skills to enhance learning opportunities and promote the growth of the students. He facilitates the addition of a variety of rich dimensions to enhance the opportunities for normal and exceptional students. John A. Divis (1966) described the media administrator as:

The person charged with the administration of instructional resources having as his primary goal the encouragement and implementation of effective use of the technological and material resources for the benefit of all learners. He must maintain a perspective which facilitates the achievement of this goal by all of his colleagues in the classrooms. Like them he must be student-centered in his approach to teaching materials and devices. (p. 238)

As a link between the different departments of the institution the director seeks to secure understanding, acceptance, and support, internally and externally, for the benefit of the total institutional program. Finally, as a director of support management, he recognizes that the only viable business of the institution is the education of people. Therefore, he strives to get on with the business of improving instruction, and may delegate many responsibilities to other qualified personnel.

Harman's study (1971) was one of the first attempts to approach the role of the instructional media director from an idealistic point of view. He described it in terms of three major responsibilities.

(1) As a manager, the school media director is responsible for organizing, managing, and evaluating the school media program. He must maintain contact with all aspects of the instructional program including courses
of study and experimental programs. (2) As a consultant, the media
director assists teachers, students, and educational leaders with the
location, selection, production, and utilization of instructional media.
(3) As a teacher, he is responsible for conducting workshops and other
in-service educational activities for teachers and administrators utilizing
the full spectrum of instructional media.

A study which sought to examine the position of the media
director in large school systems was conducted by Morrisohl (1966).
The study sought to determine the professional profile of the position,
the personal professional attributes, the general nature of pro-
fessional preparation, the job satisfaction related to the position, the
general organizational patterns, and the responsibilities and obligations
entailed. The following conclusions were drawn from this study.
(1) The instructional media directors were a professional group by
education and by participation in instructional media activities for
the advancement of the profession. (2) The instructional media directors
reported needing more professional and non professional assistance to
aid them in carrying out the aims of their programs.

Van Dresser (1971) conducted a study designed to identify job
competencies essential to the media directors. The following conclusions
were drawn from his study. (1) One of the primary jobs of the media
director is working with administrators, teachers, and students.
Therefore, he should learn the importance of and be skilled in
communications and interpersonal relations. (2) He must have prior
teaching experience if he is to perceive and solve instructional
problems. (3) Curricular areas including administration, materials
utilization, instructional design, learning theory, system development,
communication theory, material selection, behavioral objectives, materials production, and intern experience should be included in the media program of all colleges and universities.

There is a great deal of literature listing the duties of media center administrators. The similarities of these listings are notable. Horton and Horton (1973) summarized these similarities as follows:

The director's task is to organize and administer the service of the learning center at each step of the educative process and along a broad curricular continuum from nursery school for very young children to adult learning for teachers and administrators. At each step the director must plan, implement and evaluate the services provided by the learning center. (p. 21)

In addition to the author's statement, the following tasks are included:

1. Budget preparation and accountability.
2. Formulating policy for the effective use of the center.
3. Planning with the learning center staff for more and better service to teachers and pupils.
4. Offering in-service experience in new media and materials to the teaching and administrative staff.
5. Assisting new teachers in the use of instructional materials and equipment.
6. Coordinating all library, auditory, visual and related instructional materials and equipment services.
7. Developing systematic procedures for the review, evaluation, and selection of instructional materials.
8. Coordinating and administering the review evaluation, and selection of text-books, trade books, instructional materials and equipment.
9. Maintaining a professional library for teachers and administrators.
10. Maintaining a central processing center for all books and instructional materials.
11. Developing standards and specifications for instructional materials and equipment.
12. Serving as a consultant for the planning and building of new school facilities and for the remodeling of existing structures.

13. Producing selected instructional materials and providing graphic production for the teachers.

14. Providing editing and reproduction services for all printed materials.

15. Coordinating television and radio production. (p. 22)

Brown, Norberg, and Srygley (1972) described the major assignment of the media administrator as follows. He must:

- Identify the principal functions and subfunctions to be performed in the organization and the significant specific tasks related to each.
- Group those tasks into compatible units which, together, comprise duties subsumed in each position.
- Provide opportunities for "laddering" . . . as well as for "latching" . . .
- Set forth the acceptable levels of proficiency for each such position . . .
- Indicate the kinds and nature of guidelines the incumbent will be expected to consult or use in carrying out his assignment, the title and level of individual work officer to whom he reports, the nature of expected relationships with other individuals and positions, and the anticipated degree of initiative or independence expected to be used in the performance of his duties.
- Specify required amount of types of education, experience, or other qualifications expected of successful applicants.
- Specify the position rating (class and level) and salary scale (range), and give merit and promotion data. (pp. 388, 390)

Ted C. Cobun (1964) reinforced this idea by suggesting that the instructional media administrator should be able to "find the full educational potential that the audiovisual equipment and materials hold." His contribution should be "more valuable than are his routine duties of directing the selection, preparation, cataloging, storage, dispatch, recovery and maintenance of A-V materials." He "should take an active role in starting or augmenting a district's inservice training program for teachers." The administrator should help teachers introduce new materials into the classroom and incorporate them into their teaching...
style. (p. 76). Also, Wilkinson (1971) highly recommended "that the instructional media director should have as an important part of his duties the planning, directing, and teaching of instructional media and communications courses which are a regular part of the curricula" (p. 160).

Erickson (1963) identified several components of the media program director's role:

1. The Media Program Director as a Leader
2. The Media Program Director as an Educator
3. The Media Program Director as an Executive
4. The Media Program Director as a Supervisor and Consultant
5. The Media Program Director as a Technological Expert
6. The Media Program Director as an Equipment Technician. (p. 22)

Wilber Jones in his doctoral study (1963), identified 32 questions common to media directors in 112 programs throughout the U.S.A.:

1. Is clerical or technical help provided for: Keeping all equipment and materials readily accessible to all teachers?
2. Are periodic inventories of equipment and materials conducted?
3. Are reports for the administration on the status and needs of audio-visual services prepared?
4. Are teachers involved in the actual selection of materials and equipment?
5. Is clerical or technical help provided for: Keeping teachers informed of new acquisitions, materials, film confirmations, and pending equipment purchases?
6. Are regular checks of equipment and materials conducted to determine that all items are serviceable and in working order?
7. Are records maintained on equipment usage and costs?
8. Are superintendents or principals able to use the audio-visual instructor as a consultant or advisor on matters of: Specifications of materials and equipment?
9. Are facilities and/or opportunities for in-service training

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provided for teachers? Is assistance lent in locating source materials? (e.g., film catalogs, index of free films, etc.)

10. Is clerical or technical help provided for: Classifying and cataloging a wide variety of materials for teachers?

11. Are minor repairs, servicing or replacement of parts made regularly?

12. Are training opportunities for teachers, pupils, and technical personnel in the operation and care of equipment utilized?

13. Are facilities and consultative services to teachers and/or pupils provided in arranging preview sessions for films, filmstrips, etc.?

14. Is the acquisition of free and rental materials for teachers provided for?

15. Does the media instructor serve the superintendent or principal as an audio-visual consultant or advisor on matters of: Improving physical facilities of classrooms in terms of: Acoustics, light control, room darkening or ventilation?

16. Is equipment repaired and serviced regularly?

17. Are teachers involved in establishing criteria for the selection of audio-visual materials and equipment?

18. Is clerical or technical help provided for: Preparing handbooks for teachers which describe the services of the Center?

19. Is equipment and materials for special classes such as foreign language departments provided?

20. Does the media instructor serve the superintendent or principal as an audio-visual consultant or advisor on matters of: Providing information about equipment ratios and/or standards?

21. Does the media instructor provide equipment and materials for special classes such as: Special education classes? (e.g., retarded or slow learners)

22. Does the media instructor make available an extensive selection of audio-visual books and magazines as a professional library for teachers and other personnel?

23. Does the media provide facilities and consultative assistance to teachers and/or pupils in: Planning the utilization of materials and equipment?

24. Is clerical or technical help provided for: Regular checking of sources of indexes of enrichment materials?
25. Does the media instructor provide student operators for equipment operation in the classrooms?

26. Does the media instructor serve the superintendent or principal as an audio-visual consultant or advisor on matters of: Curriculum revision and development?

27. If the media instructor provides facilities and opportunities for the audio-visual in-service training for teachers, does he utilize any of the following: Demonstrations on preparation and uses of materials?

28. Does the media instructor provide facilities and consultative assistance to teachers and/or pupils in: Arranging demonstrations and/or doing demonstration teaching when invited?

29. Does the media instructor devote a major portion of his time encouraging and stimulating teachers to develop a high degree of audio-visual competencies?

30. If the media instructor provides facilities and opportunities for the audio-visual in-service training for teachers, does he utilize any of the following: Individual conferences with teachers on audio-visual problems?

31. Does the media instructor provide publicity through appropriate media about the activities and services of the audio-visual center?

32. Does the media expert provide facilities and consultative assistance to teachers and/or pupils in: Preparation and production of audio-visual materials? (pp. 194-196)

In 1961, a list of duties and responsibilities was prepared by the participants of the Okoboji AudioVisual Leadership Conference and was later reported by Lewis (1961). The list reads:

1. Be directly involved in curriculum planning.

2. Promote among teachers, administrators, school governing bodies, and school patrons the concept that the use of resource materials is integral to instruction and not an adjunct to be used when time permits.

3. Establish an educational climate suitable for the optimum use of instructional media and materials.

4. Develop new measures for determining the effectiveness of instructional materials in specific applications.

5. Be responsible for evaluating emerging innovations for possible introduction into the learning process and for interpreting and
promoting those innovations which can make a significant contribution.

6. Become involved in the development of central classification systems that will permit rapid location of related instructional materials for specific learning situations.

7. Arrange for the production of instructional materials which are not readily available but are necessary for the instructional program, and provide the incentive, training, and materials for production by teachers and others.

8. Provide consultation opportunities for all teachers, including teachers-in-training, to secure assistance in the use of new media and materials in their lesson planning.

9. Contribute to the improvement of methods of communication within the profession on matters relative to the emerging practices and innovations, the exchanging of ideas, and the establishing of liaison with outside agencies--the "clearing-house" idea.

10. Be involved in decision-making activities on such matters as building-planning, classroom design, etc., as they affect the instructional materials program.

11. Assume the leadership responsibility for initiating programs or activities that will bring about needed improvements and innovations.

12. Develop and implement instructional systems involving automation approaches and expedite free flow of information and ideas (communications center, learning laboratories, random access devices, etc.).

13. Make use of research results.

14. Provide a variety of well-selected instructional materials and equipment, easily accessible for use by teachers and pupils and give encouragement and/or administrative support for the effective use of these materials. (pp. 16-17)

Regarding the duties and responsibilities of the instructional media center and its administrator the following principles have been recommended by Erickson (1968):

1. The work of organizing and developing instructional media services will proceed most effectively under specialized, centralized leadership, working coordinately with other curriculum personnel and under adequate system-wide financial support for auxiliary staff, equipment, materials, and facilities.
2. Media materials and equipment should be easily accessible to teachers at the time they are needed in an appropriate environment.

3. Instructional media equipment should be made available to teachers with a minimum of inconvenience and distraction.

4. The instructional media-service program should include a variety of materials for teachers.

5. The instructional media-service program should provide for the continuous, effective in-service growth of teachers in accordance with their needs.

6. Provision for city-wide instructional media services need to be based on continuous long-term planning. (pp. 22-24)

The instructional media director should be prepared to be a leader and not simply a supply agent. This leadership is dependent in part upon his knowledge and understanding of the institution and curriculum being served. The education of an instructional media director should be directed to more than the education of the master teacher. By nature, he is a generalist who is specialized in the movement of information from a source to a client. He should have a broad academic background in the liberal arts, and the specific education area, and a working knowledge of curriculum development of all levels (Horton, 1973, p. 24).

Schofield (1964) summarized the specific competencies needed in organizing and selecting instructional media centers as follows:

1. Broad educational background, coupled with teaching experience.

2. Leadership skills: Knowledge of teacher's and pupil's needs, interests and abilities; good human relations.

3. Knowledge of the curriculum and teaching techniques.

4. Knowledge of administration, management, and organization, including cataloging and classification.

5. Knowledge of the techniques of selection and evaluation, including available tools in both areas.
6. Knowledge of how materials are produced as distinguished from the knowledge of specialized and highly skilled artisans and craftsmen.

7. Knowledge of how materials are used in relation to selection skills.

8. Knowledge of fundamentals of equipment operation. (p. 24)

**Organization of the Instructional Media Center**

Several organizational patterns for instructional media centers have been suggested. The Educational Research Council of America recommends the following three types:

1. Centralized instructional media centers in which instructional materials are acquired, catalogued, and stored in one center from which they are distributed to all schools in the system;

2. Decentralized or individual-building instructional media centers with each school providing its own services;

3. Coordinated instructional media centers with a network of individual-building centers linked to a central instructional media center maintained by the school system. (Davis, 1968, p. 1)

These patterns are affected in significant ways by the type of alternative learning system in which they are operated.

The administrator or director of the instructional media center reports to and plans with the vice-president for academic affairs in colleges or universities, suggests Brown (1972), Erickson (1968), and the American Library Association and National Education Association (1970) (see chart 1).

One study points out that "The media director should report directly to the institution's chief academic officer rather than to the dean of any of its schools or subunits" (Brown, 1972, p. 105).

Brown (1965) has reported for the organization and management
Chart 1. Organizational chart of the institution
of the Division of Learning Resources at Florida Atlantic University, that the director of learning resources reports directly to the dean of academic affairs and he has five departments under his direction: "(1) library, (2) television and radio, (3) learning laboratories, (4) graphics, and (5) technical facilities" (see chart 2). These facilities are designed for flexibility in accommodating individuals and groups in the institutional life of the learner and instructor (p. 314-315).

Douglas (1973) has described her instructional media center under three departments, and she explains how the center has achieved the ultimate goal of all media directors. The departments under her direction (see chart 3) are:

1. Library Services: The media coordinator for library services is responsible for the development of policies and programs in the library services area of the center.

2. Production Services: The media coordinator for production services is responsible for the production of instructional materials within the center, both print and non-print.

3. Utilization Services: Is responsible for the distribution, inventory and maintenance of media hardware (equipment), and media software (materials) within the center. (p. 81)

She promises that this organizational pattern would be one of those ideal managements "that all media directors want, and so often fail to achieve." And she adds, "In this instructional development role, the director is responsible for providing maximum utilization of all educational resources within the institution" (p. 84). In this case she has recommended the combination of print and non-print materials serving as an instructional media center for the school.
Chart 2. Instructional media center organizational chart
Chart 3. Instructional media center organizational chart
Financial Aspects of the Instructional Media Center

Since the teacher education institutions in Iran are operated by the government, there is no need to discuss the efforts to support the instructional media program. The consideration here will concentrate on estimates of the amount of money needed to operate the center.

The instructional media program budget is a function of program planning. It is designed to implement the realization of instructional objectives. It is the responsibility of the administrator to see that each unit of the instructional media program receives due attention in the budget and that the allocation of funds is based on sound principles of management.

Brown (1965) reinforces this statement by saying:

One of the most critical tasks of the chief administrator of an educational program is seeing that the goals of the enterprise are properly reflected in budgetary planning for departmental activities; . . . and with suitable coordination by those who must administer and coordinate them. (p. 140)

An adequate budget, essential to providing good services, is based upon the needs of the curriculum and the functions of the media center program. The administrative head, with the help of his subunits' heads, acquires the information needed to prepare the budget, with ample time to present and explain the budget request to the institutional administration as part of the budget process.

Some authorities have based the cost of the program in the range of $2 to $10 per student. Another method of financing the program is to set aside percentages of the institution's operating budget. A plan such as the following has been adopted by some institutions (Wilkinson, 1971, p. 153):
TABLE 1

PERCENTAGE FINANCING PROGRAM

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library (print materials)</td>
<td>1%</td>
</tr>
<tr>
<td>Audiovisual (print and non-print material)</td>
<td>1%</td>
</tr>
<tr>
<td>Textbooks</td>
<td>1%</td>
</tr>
<tr>
<td>Instructional supplies</td>
<td>1%</td>
</tr>
<tr>
<td>Instructional equipment</td>
<td>1%</td>
</tr>
<tr>
<td>TOTAL percentage of operating budget</td>
<td>5%</td>
</tr>
</tbody>
</table>

The American Library Association and National Education Association (1970) recommend that "not less than six percent of the national average for per pupil operational cost . . . should be spent per year per student" (p. 35). This amount is used for the annual expenditure for software and hardware and does not include newly established media centers and/or special programs (p. 36).

Facilities for the Instructional Media Center

Erickson (1968) commented that "No one knows in exact detail what the media-service center . . . ought to be. How large it ought to be . . . where it should be located, and how much financial support is required are relative matters that depend on local conditions" (p. 301). But in order to provide adequate media services in an institution operational spaces are essential, and it is the responsibility of the media director to become familiar with the physical facilities that will make possible the efficient use of instructional materials, and to make wise recommendations in terms of local conditions.

Most large industrial firms and many educational institutions are currently engaged in the systematic analysis of their building needs and are carrying this analysis on to the individual activity area. They
find that the time and energy devoted to advanced planning not only makes budgeting more realistic, but assures more adequate space allocation for the types of activities which will occupy the proposed structure.

Boles (1965) commented regarding the factors in design of school buildings:

If a school facility is to be functional, the site, all elements of the building itself, and all of the equipment and furnishing within must "operate, work, be used." Just as obviously, all school facilities function to some degree, but it should be the concern of the persons charged with the responsibility for planning facilities to see that all elements of a facility are so planned that they operate, work, and are used to the maximum both now and in the future. (p. 241)

Many articles and books are written about educational specifications and have reflected similar suggestions as Gardner (1965) stated:

The writing of educational specifications provides opportunity for the educator to tell the design professions the purpose and requirements of the proposed school facilities. Educational specifications are precisely what the name implies—with emphasis upon educational. Educational specifications are clearly separate from architectural specifications. The great need of architects is not for advice on architecture, but for information about the functions and activities projected for a new school plant. (p. 98)

Brown, Lewis, and Harcleroad (1969) indicated:

The focus of all planning for instruction is upon the students, their needs, their capabilities, and their achievement of carefully specified objectives. Planning for student learning is a systematic process, a series of steps no one of which is more important than another. Thus a principal role of a teacher is to plan for systematized instruction. (p. 25)

The primary purpose in designing and constructing schools is to provide pleasant, healthful, and convenient physical environments in which to arrange student groupings, and to use a variety of instructional materials and equipment. Instructional media centers have a
special place among the many exciting things that are happening in the schools. The facilities required for an instructional media center are of course to some degree dependent on the local program and the potential size of the school system.

The American Library Association and the National Education Association (1970), concerning the environment of the media center, made this comprehensive statement: "The media center is functional in design and inviting in appearance. It should have good lighting, acoustical treatment, and temperature and humidity control necessary for the comfort of its users and for the preservation of materials" (p. 39). The physical facility for such centers should be as capable of change as the program it serves. In addition, the looks of a building should agree with the taste, culture, weather, climate, and architecture of the people who are going to live in it, and serve their purpose.

Gardner (1965) recommended that "each major activity should be identified and the appropriate educational specifications should be written for each." Then he points out seven factors to be considered when identifying activity spaces:

1. Philosophy and objectives--a concise statement about a philosophy and objectives of the activities to be housed in the space under study.

2. Activities to be housed--all activities should be identified, including size of groups, electricity needs, and light control. This information should assist the architect in his determination of circulation patterns for both the internal as well as the external movements for each space.

3. Persons to be accommodated--the number of pupils, the number of teachers and the optimum class size are suggested responses.

4. Space requirements--it is not intended that a precise statement of measurement be given; instead quantitative facts in terms of types and numbers of room and sizes of spaces should be recorded. . . The kinds of activities to be housed will be the
justification for the suggested amount of space.

5. Special relationships--clearly defined relationships set the stage for functional facilities.

6. Equipment to be housed--the types and kinds of equipment affect in a major way the design of the space. The identification of types of educational equipment and materials is required for functional design of space.

7. Special environmental provisions--the visual and acoustical requirements for use of audiovisual media. This calls for a description that is thoroughly understood by the designer. (p. 100)

The choice of structure must be in harmony with the goals and functions of the school. An organizational innovation must be seen as being closely interwoven with a concept of school function and curriculum design. Present trends in instructional materials usage are definitely affecting the space requirements of media centers in colleges and universities. Hansen (1972) stated that:

The considerations in regard to projected trends are:

1. Community growth--... in a community that is changing rapidly, the design should be flexible. Expansion areas are vital.

2. Materials growth--future growth of instructional materials has an influence on space priorities for storage ... The facilities must have provisions for growth of materials.

3. Curriculum trends--trends in curriculum in the future should also influence the design of the learning resource center ... The conclusions drawn from each area and each person consulted will help in making a rational decision and increasing the probability of success.

The more ideas that flow, the greater is the potential the administrator will be able to see. (p. 63)

**Location and Space**

The instructional media centers should be located in relation to the general learning area. They have to serve all the students and faculty members, individually as well as in group studies during the
entire school day, before and after the regular hours. "The actual size of the department itself in each case must be based upon the enrollment, curriculum and service desired" (Taylor, 1961, p. 54).

Erickson (1968) generalized space guidelines for media program as follows:

1. Optimum space for known services will increase the efficiency of the work done by the available personnel, and conversely, crowding causes working efficiency to deteriorate.

2. Media-center space requirements should be planned to meet educational needs of a given school system for a 15-year growth period.

3. The need for space for any given area depends on the nature and volume of a known or predicted service and the specific operations to be carried out.

4. Until services can be predicted, no valid estimate of space needs can be made. (p. 308)

There seemed to be no specific figure or pat answer to the amount of space needed because there were so many variables. However, many specialists in media programs; Brown, 1972; American Library Association & National Education Association, 1970; Erickson, 1968; Davis, 1971; Pearson, 1973; have given recommendations regarding the kinds of space needed in instructional media centers. The following comprehensive list was adapted from these sources:

1. Administrative offices
2. Clerical offices
3. Office space for professional staff members
4. Professional library
5. Conference room
6. Reception and display area
7. Storage spaces for materials and equipment
8. Blind storage

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9. Loading and pickup space
10. AV technician's room
11. Maintenance and repair space
12. Photographic laboratory and dark room
13. Duplicating and printing area
14. Graphic section space
15. Film storage
16. Previewing and editing space
17. Recording and audio production space
18. Workshops
19. Classrooms
20. Radio station—school system FM radio
21. TV studio—school system closed circuit TV and videotape production
22. Restrooms

Adequate space should be provided for these facilities in a proper building where all the activities and programs of the center can be performed efficiently. But before such a building is planned, a few aspects should be defined. As Alan Green (1969) has suggested:

When a building program is first being considered the policy makers must define present and potential uses for media in terms of the educational program, the character of the institution, the talent and development of the staff, the type of financial support, the existing institutions throughout the region . . . . (p. 33)

Erickson (1963) has expanded the above factors in the following questions:

1. What kinds of learning spaces should we have and how should we equip them with media facilities if we desire to arrange conditions so that pupils can learn effectively by themselves a given portion of essential content?

2. What kinds of learning spaces and media facilities must be provided when pupils are organized to learn not only from their own teacher, but from others with teaching roles to play?
3. What kinds of learning spaces and media use facilities do we need for those educational objectives that we predict demand direct and personal guidance of pupil activity as well as pupil-to-pupil communication?

4. What kinds of special service do teachers and pupils urgently need effectively in direct and indirect instructional roles?

These questions imply the need for an unmistakable flexibility in a variety of learning spaces, each of which may require in a new and vital way, adequate provision for media utilization. (p. 177)

It is necessary to get answers to all the above mentioned questions before making any commitments to a building construction program.

The architect should be properly and adequately informed regarding the special needs and programs. Alan Green (1969) has suggestions regarding the points that educators should make clear to the architect so that he can make his building plans to suit specific requirements. The basic necessary information about the building should include "A clear statement of the instruction's educational philosophy and significance of the proposed building in the light of these goals and objectives . . . . And a brief description of the functions that will be going on in the building" (p. 37).

He insists that the following information should be more specific:

- A schedule of every desired space in the building defining the types of users, number of users, functions to be housed, required square footages, necessary furniture, required equipment, and other supporting functions. All special requirements of which the architect should be aware, should be included.

- A description of how each of the spaces will relate to each other and to the building as a whole.

- Analysis of how the building functions as a whole. This includes information about access, circulation, and overall servicing needs. (p. 37)

Thus, the task of constructing a building might look very
simple, but to create a building that will take care of the various educational activities of that institution is difficult. It is more difficult to construct a building which can also envisage the future needs and growth of the institution, or a change in the emphasis of activities. In this case, the building should not only take care of the present activities, but also cater to the needs of future purposes and growth. Therefore, the concepts of flexibility and adaptability should be kept in mind while constructing the building. Alan Green (1969) has put this in the following words:

It is not difficult to realize why the task of developing a building program is so difficult that it is often by-passed or left to arbitrary or non-committal decisions. Its development requires many decisions, decisions which go to the very heart of the educational institution . . . These are not simple "yes" and "no" decisions that can easily be made. Many hours of debate, many shades of opinion, and some calculated guesswork will enter into all these decisions, decisions that will become the basis for specific requirements spelled out in the program. (p. 33)

Anna Hyer (1961, p. 508) summarized three sets of recommendations for media service area spaces for Indiana University (see table 2).

**Environment**

The environment for the instructional media center encompasses several factors, among which are sound control, light control, thermal control, and aesthetic appeal.

**Sound Control**

Acoustical planning of the entire media center is important in controlling the transmission of noise from corridor to classrooms and from one classroom to another. In discussing the significance of sound isolation Alan Green (1969) stated that "To be totally effective, any
TABLE 2

PHYSICAL FACILITIES SPACE SUGGESTIONS

<table>
<thead>
<tr>
<th>AV Service Area</th>
<th>Michigan (Per 500 Students)</th>
<th>University School Indiana University (Per 1700 Students)</th>
<th>Department of AV Instruction (Per 600-1200 Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>200 sq.ft.</td>
<td>370 sq.ft. including conference and student assistance space</td>
<td>150-200 sq.ft.</td>
</tr>
<tr>
<td>Preview-Auditioning</td>
<td>360 sq.ft.</td>
<td>250 sq.ft.</td>
<td>800-1000 sq. ft.</td>
</tr>
<tr>
<td>Storage Maintenance</td>
<td>Varies (see criteria for figuring)</td>
<td>180 sq.ft.</td>
<td>600 sq.ft.</td>
</tr>
<tr>
<td>Material Preparation</td>
<td>(see criteria)</td>
<td>750 sq.ft. plus 150 (darkroom)</td>
<td>600-800 sq. ft. plus 100 (darkrooms)</td>
</tr>
<tr>
<td>(Teacher and Students)</td>
<td></td>
<td>100 (storage area)</td>
<td></td>
</tr>
<tr>
<td>Teacher Machine Center</td>
<td>800 sq.ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>1200 sq.ft.</td>
<td>1200-1800 sq. ft. (TV) 14-15 ceiling 400-500 sq. ft. (radio)</td>
<td></td>
</tr>
<tr>
<td>Origination Space</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(TV, Radio, Recording, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

sound barrier must be air-tight. Even the smallest openings, such as open joints or cracks, electrical outlet boxes, or keyholes, will greatly reduce the sound isolating value of the partition" (p. 16). Concerning the design of the rooms in which considerable use will be made of audiovisual media, Brown (1965) pointed out that "The shape of the room affects its sound and reverberation characteristics. Nonparallel walls produce a
better sound environment than the parallel walls of square or rectangular rooms" (p. 63).

**Light Control**

Adequate light control should be provided for in every media center to the extent that all types of projected media can be utilized effectively.

Light control requires facilities for regulating both natural and artificial light. Factors must be adjusted to foster student efficiency in essential learning tasks.

For controlling natural light, drapes, roller blinds, or full-closure venetian blinds can be used. However, artificial lighting should be provided as if no other light source were available. There should be an adequate level of illumination, without glare or shadow. A good lighting consultant should review the lighting system proposed in any media center building.

**Thermal Control**

No one knows better than a teacher how unendurable the air can become in a classroom, and how impossible it is to conduct a vital and creative activity when it is too cold, too hot, too humid, or if any effective odor is present.

Various and frequent uses of a media center require adequate temperature controlled supplies of clean, properly circulated air. The following suggestions offer guidelines for providing adequate media center heating and ventilating.

An air conditioning operation is possibly one of the vital requirements for the effective use of media centers. The recommended
uniform temperature for study areas in 68-70 degrees Fahrenheit \(24-26\) degrees Centigrade. The air system should be provided in individual classroom facilities, automatically controlled for both heating and cooling. Special attention should be given to the noise level of the heating and cooling unit. Temperature variations should be minimal throughout the day (Brown, 1965, p. 66). Regardless of the outside temperature the internal temperature should always be comfortable.

**Aesthetic**

Aesthetic or special environment is closely related to the three environments mentioned above. The special characteristics of a school related to the amount of and relationship of the various instructional spaces must be pleasant and based on the nature and learning needs of the individual pupil. What should be aimed at is a harmonious organization of space which links function to form through elimination of the nonessential. Everything that contributes to the general effect—casework, furniture, light and window systems, floor covering, and color—should help create an environment in which visual and functional unity are achieved and in which students will enjoy their work (School for America, 1967, pp. 35-41).

**Equipment and Materials**

Regarding provision for equipment, the American Library Association and the National Education Association (1970, pp. 44-49) have adopted quantitative standards for instructional media centers. These standards for equipment have been adopted by the Department of Audiovisual Instruction of the National Education Association. The actual recommendation was organized in three columns, on basic and advanced levels. Only the advanced column has been quoted in table 3.
### TABLE 3

**STANDARDS FOR INSTRUCTIONAL MEDIA EQUIPMENT**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 mm sound projector</td>
<td>1 per 2 teaching stations plus 5 per media center</td>
</tr>
<tr>
<td>8 mm projector (only equipment for which</td>
<td></td>
</tr>
<tr>
<td>materials exist at the appropriate school</td>
<td></td>
</tr>
<tr>
<td>level should be procured)</td>
<td></td>
</tr>
<tr>
<td>2x2 slide projector</td>
<td>1 per 3 teaching stations plus 5 per media center</td>
</tr>
<tr>
<td>remotely controlled</td>
<td></td>
</tr>
<tr>
<td>Filmstrip or combination filmstrip-slide</td>
<td>1 per teaching station plus 4 per media center</td>
</tr>
<tr>
<td>projector</td>
<td></td>
</tr>
<tr>
<td>Sound filmstrip projector</td>
<td>1 per 5 teaching stations plus 2 per media center</td>
</tr>
<tr>
<td>10x10 overhead projector</td>
<td>1 per teaching station plus 4 per media center</td>
</tr>
<tr>
<td>Opaque projector</td>
<td>1 per 15 teaching stations plus 2 per media center</td>
</tr>
<tr>
<td>Record player</td>
<td></td>
</tr>
<tr>
<td>Audio tape recorder</td>
<td></td>
</tr>
<tr>
<td>Listening station</td>
<td></td>
</tr>
<tr>
<td>Projection screen</td>
<td>1 permanently mounted screen per classroom plus additional screens of</td>
</tr>
<tr>
<td>suitable size as needed for individ-</td>
<td></td>
</tr>
</tbody>
</table>

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Table 3--Continued

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ual and small group use. The permanent screen should be no smaller than 70x70 with keystone eliminator</td>
</tr>
<tr>
<td>Closed-circuit television</td>
<td>All new construction should include provisions for installation at each teaching station and media center. Older buildings should be wired for closed-circuit television with initiation of such programs</td>
</tr>
<tr>
<td>TV receiver (minimum 23 in. screen)</td>
<td>1 per 24 viewers, if programs are available, in elementary schools; 1 per 20 viewers in classroom, where programs are available, in secondary schools; 1 per media center in both elementary and secondary schools</td>
</tr>
<tr>
<td>Portable video tape recorder</td>
<td>1 per 5 teaching stations with a minimum of 2 recorders per building</td>
</tr>
<tr>
<td>Radio receiver</td>
<td>3 per media center plus central distribution system (AM/FM)</td>
</tr>
<tr>
<td>Micro-reader printer</td>
<td>3 per media center</td>
</tr>
<tr>
<td>Micro-projector</td>
<td>1 per 2 grade levels in elementary schools; 1 per department where applicable in secondary schools; 1 per media center</td>
</tr>
<tr>
<td>Items for special consideration</td>
<td>Television; a complete distribution system of at least six channels should be available in a building so that: broadcast TV 2500 MHZ, UHF, or VHF can be received; signals can be distributed to each room from the central TV reception area and/or from a central studio; signals can be fed into the system from any classroom; signals are available simultaneously.</td>
</tr>
</tbody>
</table>

The Computer in Education

Most colleges now offer courses in computer programming, and a number of institutions of higher education offer undergraduate and

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graduate degrees in computer science. Sanders (1977) stated that
computers will be used in education for "(1) planning and decision
making, (2) control, (3) computer assisted instruction, and (4) simu-
lation" (p. 335). He said that "computer-assisted instruction refers
to situations where students themselves interact with computers and
where instruction is presented or reinforced" (p. 346).

The computer will be able to solve many of the problems of
the students. It can "lead to improved student performance in thinking
logically, formulating problem solution procedures, and understanding
relationships" (p. 334).

The computer will be a tool to assist teachers in managing
individual instructional programs, testing the student, evaluating his
background, and aiding educationally handicapped students. Through
computers, learning has been facilitated in areas "such as mathematics,
statistics, languages, reading, spelling, etc., where substantial
memory work is required" (p. 341). An understanding of the place that
computer service will hold in the near future can better be understood
by taking into consideration this report from Changing Times (1967)
magazine:

According to William T. Knox, a scientific advisor to the President,
"By 1980, perhaps half the public school districts and all the
colleges and universities in the United States will be employing
remote terminal direct access computers." (p. 27)

In spite of the potential advantages of computers they have not
yet been used to their fullest extent in instructional programs.

Selection of Equipment

Administrators who plan or approve the acquisition of equipment
or develop a media program should know exactly what is required--what

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types of devices, in what quantities, and at what performance levels.

Despite variability, criteria for judging equipment can be agreed upon at a general level. Any selection must be dependent upon a list of specifications. Many media specialists (Brown, 1972; Davis, 1971; and Erickson, 1963) agree that the general criteria for selecting instructional equipment should cover such aspects as:

**Usefulness.** Is it going to be used with sufficient frequency? It must withstand extensive use and abuse.

**Reliability.** Is it a reliable piece of equipment in accordance with accepted standards and quality? The equipment should not only be strong and sturdy, but should also consistently work well.

**Operability.** Does the item operate at a satisfactory level? Is it simple to operate? Is there provision for manual as well as automatic operation?

**Safety.** Does the equipment include desirable safety features? The equipment should not be a hazard to either teachers or students.

**Reputation.** The manufacturer should have a good reputation and dependable warranty.

**Repairability.** The equipment should be repairable without undue expenses for parts and labor, and with relative ease. Necessary parts and services should be readily available.

**Compatibility.** The equipment should be compatible with the other equipment already in the collection. The criterion of compatibility interacts with other criteria such as cost and usefulness.

**Cost.** The price of the equipment should stay in line with those of competitive makes of the same type or quality.
Appearance. The equipment should match the other items in the center. It should be aesthetically pleasing.

Portability. The equipment should be easily lifted or carried by the users.

Warranty. The warranty of the equipment must specify the number of months of free services.

Services. Some dealers give special services beyond the warranty which is offered, as well as providing in-service training for users.

In purchasing equipment and/or materials the highest priority must be given to needed equipment, which should be purchased first.

Administrators and media specialists must rely on journals covering their field of interest and other general and specialized periodicals, but the best source for this type of information is the manufacturer.

Efforts Needed to Support the Program

Farris (1973) conducted a study of the quality and function of educational media programs as evaluated by instructors, media center directors, and administrators in Arkansas higher education. The study also sought to determine the major barrier to the improvement of educational media programs. He stated:

Previous research efforts have cited the following forces: (1) the institutional commitment to the media program, (2) faculty attitudes toward the media program, (3) faculty involvement in program development, (4) convenience of the media center location, and (5) faculty utilization of the media services, materials, and equipment. The importance of the educational institution's commitment cannot be over emphasized. Without a firm commitment to the media program the best efforts will be for naught. (p. 45)
Thornton and Brown (1968) supported Farris' findings with the following statements:

That commitment must include at least four elements: (a) administrative involvement . . . , (b) adequate capital investment in both space and equipment, (c) technical staff to assist instructors in development of materials and in operation of technical equipment . . . , and (d) faculty interest in improving the quality of instruction. (p. 145)

Studies have shown that faculty members are more accepting of instructional media programs if they participate and cooperate with the media staff in planning the instructional media program. Farris (1973) summarizes his survey in the following statement:

The key to a successful program lies in the total acceptance of the program by the sponsoring institution, the media personnel, and teaching faculty. If the educational media program is fortunate enough to enjoy such acceptance, many secondary problems such as finance, utilization by the faculty, space, equipment, etc., can be easily remedied. (p. 52)

Robert Diamond (1963) indicated that college and university administrators must be committed to improving the quality of education through the improvement of the instructional media program. Among his most significant conclusions were the following: (1) the administration of higher education must assume sore responsibility for the improvement of instruction, (2) good media programs must receive support personnel and related production capabilities, and (3) the educational institution must make a commitment of both time and money for faculty release time and support staff and purchase of equipment and materials (pp. 23-25).

Fite (1967) recommends that those people working in the instructional media center must be willing to innovate, both in thought and practice, in order to further the use of the modern educational technology (p. 840).

Media directors and media educators are challenged to put these
factors together to speed the development of media centers in all schools.

**Summary**

In this chapter the attempt was made to identify and locate the experiences reviewed in the literature of the development of the instructional media centers in the United States. Writings specifically outlining organizational administrative structures, and physical facilities were numerous. However, there has been little research conducted on administrative structures for media services in institutions for teacher education in the United States. A systematic search through the literature produced only a nominal amount of information that dealt directly with this topic.

Media services in education have a long history, and are expanding very rapidly to provide the ever-growing population with an ever-expanding volume of knowledge. This growth of media necessitates a pattern in organization, administration, and physical facility structure of instructional media centers in order for them to be useful for teacher education.

Many authorities have commented on the vital role that media centers can play in the teaching-learning process. Educational technology should be considered as a service facility with its one goal that of supporting the diverse needs of the instructional programs. It is important that the media specialists participate actively in shaping the learning environment and the design of instruction. Every media facility book, piece of equipment, or material should be selected, produced, and used so that the students are challenged to a dynamic participation in a free, exciting, and enriched life. The instructional
media center on the other hand, must be a masterful blend of all concerns relating to education, which may be summarized as follows:

1. The instructional media centers have one philosophy, that is, service to students and teachers.
2. The instructional media centers are used for various purposes, depending upon the needs and imagination of students and teachers.
3. The instructional media centers are established to facilitate the use of instructional sources.
4. The instructional media centers can centralize the procurement and control of instructional media so that maximum use of the materials without unnecessary duplication can be achieved.
5. The instructional media center should be properly organized, managed, and staffed, so that it can provide leadership in the field.
6. The instructional media centers bear different names, but their main purpose is organizing and providing leadership for making instructional materials available for individual student growth.
7. The instructional media centers provide a variety of materials that give the users a wide range of choice from which to select the one best suited for the purpose.
8. The functions and qualifications of the media center director should be clearly defined so he can be more effective and efficient.
9. The media center director seeks to secure understanding, acceptance, and support, internally and externally, for the benefit of the total institutional program.
10. The media center director strives to get on with the business of improving instruction, and may delegate many responsibilities to other qualified personnel.
11. The media center director provides a variety of well-selected instructional materials and equipment, easily accessible for use by teachers and students, and gives encouragement and administrative support for the effective use of the materials.

12. The choice of the physical facilities structure must be in harmony with the goals and functions of the institution it serves.

13. The environment for the instructional media center encompasses sound control, light control, thermal control, and aesthetic appeal.

14. The success of the media program lies in the total support of the program by the sponsoring institution, media personnel, and teaching faculty.
CHAPTER III

PROCEDURES AND METHODOLOGY OF THE STUDY

Sources of Data

In pursuit of literature pertaining to the instructional media services, a careful search was made of various sources. This search covered the following areas:

1. Card catalogues in the libraries of Andrews University, Berrien Springs, Michigan; the University of Notre Dame, Notre Dame, Indiana; and Western Michigan University, Kalamazoo, Michigan.


3. Educational Resources Information Center (ERIC).


7. Literature available from Iran.

In addition to the above, a computerized check of dissertations on the same, or similar, subject matter was conducted by Direct Access to Reference, a Xerox Service (DATRIX) of University Microfilms. The search of these sources produced nine books, seven dissertations, and several articles in periodicals pertaining to the subject. However, no information was found that dealt directly and solely with the organization and administration of instructional media centers in any
institutions of teacher education in Iran.

Gathering Background Information

In order to gather necessary data or information the researcher took the following steps:

1. Reviewed the current literature as widely as possible to determine what were the trends in development and administration of the instructional media centers.

2. Reviewed recent research conducted in the United States to observe what current research has been offered in this area.

3. Visited a number of instructional media centers located at the leading universities in the Michigan-Indiana area. These are:
   - Western Michigan University, Kalamazoo, Michigan;
   - Michigan State University, Lansing, Michigan;
   - Indiana University, Bloomington, Indiana;
   - Andrews University, Berrien Springs, Michigan;

   Necessary information, schematic diagrams, organizational and administrative charts, sketches of floor plans and work areas needed, and lists of equipment and materials were gathered (see appendices C and D).

4. Interviewed the director, associate director, and other personnel of these instructional media centers in view of administrative organization of their programs by:
   (a) Discerning their patterns of administrative organization.
   (b) Identifying their varying functions and services.
   (c) Developing some promising guidelines for administrative organization, answered in terms of the following basic questions:
(1) What functions are carried on in this center?
(2) What services are performed by the instructional media center staff for teacher education?
(3) What patterns of administrative organization exist in this center?
(4) What new concepts of administrative organization are emerging in this center?
(5) What efforts in the organizational pattern will lead to better management and utilization of resources, center personnel, and facilities available?

These emphases were instrumental in determining the several descriptive survey techniques.

5. Visiting each instructional media center administrator served as an opportunity to get acquainted with him and some personnel in the center and to view their facilities.

6. The writer, in cooperation with the administrator of each center, then structured a panel for evaluation and reaction to the proposed model for instructional media program for teacher education in Iran.

7. Unpublished writings were searched only in specific cases where information was not available in published form; this provided the assurance that no source of data was overlooked.

8. An attempt was made to collect exhaustive data on the educational needs of Iran, the country under study. This data included:
   (a) Geographical location--description, conditions, and related information about the country.
   (b) Demographic data--people, the growth of the student population, and the shortage of the teachers.
(c) Historical, cultural, educational background, and teacher training programs.

(d) The "White Revolution" of 1963, and educational and economical growth of the country as a result of this reform.

(e) Role of the instructional media program in teacher education institutions in Iran—its scope and extent.

Based on the information obtained through the review of literature and visitation of instructional media centers in the United States, the researcher categorized this study under the following areas of consideration:

1. Rationale for the instructional media center for teacher education in Iran—its purpose.

2. Functions of the instructional media center for teacher education in Iran.

3. Organization and management of the instructional media center for teacher education in Iran, including: power structure, staffing pattern, job descriptions, qualifications, space relationships, standards and needs regarding space, collection and selection of equipment and materials, et cetera.

Once the information of the study was generalized as widely as possible, then a tentative design was developed for a model instructional media center and an organizational structure that would be unique for the teacher educational programs in Iran. In developing this model, the researcher kept in mind the needs of the people of Iran, peculiarities existing in that country, and the complete developmental process which must be done in the best interest of Iran and her people and within the guidelines provided by the Iranian Ministry of Higher Education.
Type of Procedure

This study is considered a developmental research. Nedler and Gephart (1972) stated that in "developmental or design process . . . we sought to develop specific systems to fulfill specific needs or functions. We sought to maintain the system at its designed, or desired specification" (p. 1). Developmental research is defined by McGrath (1970) as "... the use of scientific knowledge for the production of useful materials, devices, systems, methods or processes, exclusive of design and production engineering" (p. 20). Nedler and Gephart confirm this idea by saying, "the developmental process . . . is the most appropriate strategy when we have an operational difficulty, need to do something, and the means, the tools, and procedures for doing that thing are lacking or are inefficient at that point in time" (p. 4). "The purpose served by the developmental process is the creation of tools and procedures needed to do work in a specific environment" (p. 25).

Any organization which exists in a world of dynamic change—particularly one with such complex and significant responsibilities as a teacher education institution or any other higher education institutions--needs to plan for change and to structure its organization to respond effectively to changing environments. In the sense used here, planning is not simply ensuring that facilities, personnel and other resources are available to meet projected functions, but rather it is "... the process of preparing for the commitment to be made less disruptively" (Kirby, 1966, p. 21).

The accomplishment of an effective planning requires that a
system view be adopted. The system view means that logical boundaries must be drawn around systems of the overall instructional media centers which are more alike than they are unlike, and that planning is done on this level.

The process of planning and developing organizational and administrative strategy in the instructional media center is cast in terms of six basic components by Roger Kaufman (1971): (1) identify the problem; (2) determine solution requirements and solution alternatives; (3) select solution strategies and tools; (4) implement; (5) determine performance effectiveness; and (6) revise as required (p. 251).

Kaufman (1968) identified this approach as a tool which "does not minimize the likelihood of adapting prepackaged solutions before the requirements for solutions have been identified. This system approach requires that the problem be identified and specified before solutions are tried" (p. 419). Therefore, only four steps of Kaufman's model are taken for the purpose of this study.

Step 1. Identify the Problem

The first step in the suggested model is to identify the problem based on documented needs. This has been done in Chapter 1 by presenting the needs of teacher education programs in Iran for a model instructional media program and development of a pattern for organization and management of such a center.

Step 2. Determine Solution Requirements and Solution Alternatives

Chapters 2 and 4 deal with information found in the review of literature, including determination of the requirements stated in per-
tent document, basic facts about the organization and management of instructional media centers in the United States, and facts about the country of Iran. These documents were useful in clearly identifying the problems facing teacher education in Iran and their magnitude.

**Step 3. Select Strategies and Tools**

In Chapter 3, from alternative information found in the previous steps, the selection of appropriate tools and strategies is accomplished. This chapter includes the procedures used for the collection of data, the type of research, and the method used in selecting the panel of experts who examined this study.

**Step 4. Implement**

Founded on the basic facts and identified needs of the teacher education institutions, and on the basis of the philosophy developed as a result of the review of literature and visits to media centers, a detailed plan and program of organization and management of instructional media for teacher education in Iran was developed in Chapter 5. At this stage, the ways and the methods of getting from "what is" to "what should be" are designed and actual solution strategies and tools are utilized.

**Step 5. Revise As Required**

Kaufman (1971) suggests:

Any time a performance requirement is not met, necessary revision is required . . . . It should be noted that in the suggested model, revision may be required at any step, or point, in problem solving --it is not necessary to commit to a "disaster plan" and have to wait until the plan has been fully implemented to institute required changes. (pp. 251-252)

This step is an evaluative process and should be taken during the implementation of the model.
Panel of Experts

A panel of experts in the field of instructional media was selected and was asked to evaluate and react to the proposed model, and to forward their comments. The panel of experts was selected as follows:

1. Four instructional media center directors. These directors are responsible for administering and organizing instructional media centers in well-known universities.

2. Two instructional media specialists. These specialists were randomly selected.

A letter was sent to each panel member requesting his/her assistance (see appendix A). Enclosed with the letter was the proposed model and a return self-addressed envelope.

An examination of the reactions revealed that the panel agreed with the basic concepts presented in the model. In no instance was the panel in disagreement with the rationale of the model. The documents intended to support the proposed model are complied in appendix B.

Name and title of panel members:

Dr. Charles Woodliff, Director
Division of Instructional Communications
Western Michigan University
Kalamazoo, Michigan 49001

Dr. Richard K. Powell, Director
Teaching Materials Center
Andrews University
Berrien Springs, Michigan 49104

Dr. Arthur J. Batchedder, Director
The Advanced Learning Center
Lake Michigan College
Benton Harbor, Michigan 49022
CHAPTER IV

BACKGROUND

The Country

The name "Iran" denotes the land of the Aryans—the Nobles. Persia is derived from the classical Persis, otherwise the province of Parsa (now known as Fars) in the south of Iran. Iran's official name until 1935 was Persia.

Iran, better known as Persia, brings to mind the immutability of the laws of the Medes and Persians and the tributes of the Old Testament to the Persian kings, Cyrus, Darius, and Artaxerxes. By about 700 B.C. the Persians were found at Parsumash in the foothills of the Bakhtiari Mountains. The Persians under the Achaemenid kings, Cyrus (525 B.C.) and Darius, founded the most extensive empire in the history of the world, a synthesis of ancient civilization (Golenpaul, 1976, p. 211).

For three millenia of recorded history, Iran has experienced all the vicissitudes which have befallen great countries, but one essential fact stands out, and that is the capacity of Persians throughout every period to maintain and reassert their national characteristics and traditions in adverse circumstances. This has been amply shown during the four invasions experienced by them--that of Alexander of Macedon (331-330 B.C.), the Arab invasion (A.D. 636) and the Mongol invaders, Genghis Khan, in the thirteenth century and Tamerlane in the fourteenth.
In the Southwestern section of Asia, Iran is bordered on the north by the Union of Soviet Socialist Republics and the Caspian Sea, on the east by Afghanistan and Pakistan, on the south by the Persian Gulf and the Gulf of Oman, and on the west by Iraq and Turkey.

With an area of 636,300 square miles, Iran is an interior plateau set like a triangle between two depressions, the Persian Gulf to the south and the Caspian Sea to the north. The triangle, 3,000 to 5,000 feet above sea level, is ringed almost on all sides by mountain ranges of varying height and extent. The largest mountain range is that of Zagros, running from northwest to southeast, and over 620 miles in length and 120 in width. The northern part of the triangle, the Alburz range, joins Zagros in the northwest and looms like a great wall across the north of the country, skirting the southern edge of the Caspian Sea, reaching altitudes of 14,000 to 18,000 feet, and separating the coastal area with its luxuriant vegetation from the Iran mainland. The highest peak is the dormant volcanic mountain Damavand, 18,000 feet, about 30 miles northeast of Tehran (p. 212). The largest section of the interior of the country is desert. The climate is continental, and rainfall is generally meager.

The People

The pre-historic inhabitants of Iran developed a high degree of civilization as early as 4000 B.C. About 900 B.C., two Aryan tribes, the Medes and the Persians, settled in the area. The Medes established their domain over a region of what is now western Iran; the Persians controlled an area extending northeast from the Persian Gulf.

The people of Iran may be divided into four social classes: great
landowners; the Moslem clergy known as "Ulama;" traders, laborers, and artisans; and peasants or farmers. But, under His Imperial Majesty Mohammed Reza Pahlavi Arya Mehr's leadership, Iran has undergone an economic and social revolution to become a vigorous modern state. His improvements include major land reform, introduction of industry to towns, the spread of literacy, and wide gain in women's rights. Iranian women were allowed to vote for the first time in 1963.

Iran has a population of about thirty-five million. More than 98 percent of the people are of the Moslem faith (93 percent Shiah, 5 percent Sonni), and the rest are Gregorian Armenians, Nestorians, Hebrews, and Zoroastrians (p. 211).

The official language of the country is Farsi, or Persian, of the same family as the Indo-European languages. Since the invasion of the Arabs in the seventh century, about half the words in common use are Arabic, and lately some Western words have been added. Before World War II, under the Reza Shah the Great, a serious attempt was made to purify the language by eliminating Arabic and Western words, which resulted in the creation of many new words, especially terms associated with political and military administration and education (Sassani, 1963, p. 3). In addition to Farsi, a number of Turki, Kurdi, Luri, Armenian, Assyrian and Arabic dialects and a few other languages are spoken in Iran.

The Government

Iran is a constitutional monarchy, with three branches: legislative, executive, and judicial.

The Shah, who is the head of state, signs into force laws passed by Parliament, appoints the prime minister, approves the members of the government, and serves as commander in chief.
The highest legislative organ is the bicameral Parliament. The National Consultative Assembly (Majles) has 268 deputies, elected for a four-year term by the people. The upper house (Senate) has 60 senators, 30 of whom are appointed by the Shah, and 30 of whom are elected by public vote; they also serve a four-year term. The right to vote is granted to all citizens who have reached the age of 20; this right was accorded to women in 1963.

The executive power of the government is exercised by the Cabinet of Ministers with a prime minister as its head; it is primarily responsible to the National Consultive Assembly.

The judicial power is separate from the legislative and the executive. The judiciary includes the Supreme Court of Cassation and Appellate, Provincial, and Magistrate courts, as well as commercial, administrative, and disciplinary courts (Razi, 1975, pp. 223-237).

Iran is divided into a number of administrative provinces, each of which has a governor appointed by the Monarch, and which themselves contain counties, townships, and districts.

**Cultural Contributions**

In spite of the continuous struggle with Greeks, Arabs, Turks, and Mongols, Iran has developed during her long life a rich culture and has contributed greatly to world civilization.

After the Arabic invasion of Iran, even when small dynasties became independent, the Arabic language became the scientific language in Iran even more than Latin did in medieval Christendom. For that reason, a great and important part of what is called, in the Western world, Arabic contributions, is a product of Iranian minds. Avicenna
(Ibn-e-Sina, A.D. 980-1037) wrote in Persian and Arabic, his *Canon* superseded the works of Hippocrates and Galen and was used as a textbook throughout the whole of Europe, and until the middle of the seventeenth century it was still in use in the Louvain and Montpelier Universities ("Persia," 1910, p. 63).

Fakhr-i Razi (d. 865-932 A.D.), known in the Western World under the corrupted name of Rhazes, came from the town of Ray, where the present capital of Iran is located. He wrote a great number of works on medicine. Another Iranian scientist and philosopher of the thirteenth century, who wrote at great length and whose range included mathematics, physics, astronomy, and philosophy, was Nasser-e-Din of Tuss (east of Iran), who caused the Celebration Observatory of Maragheh to be built. Nor should the name of Umar Khayyam (d. 1048-1122), whose valuable algebra was translated and published by Woepcks in 1852, or his quatrains which have all been translated into English and the other important languages of the world, be omitted. The *Shah-nameh* (Book of Kings) of Ferdowsi (940-1020), with its sixty thousand epic verses, the mystical poems of Jalal-ud-Din Rumi, with their twenty thousand verses, Saadi's (d. 1184-1292) *Garden of Roses* and *Orchard*, Hafez's sweet lyrics, and many other excellent writers that cannot be mentioned here, are still loved and read by Iranians.

**The Economic Factors**

The great majority of the people earn their livelihood from agriculture. Lack of water, poor land, and poor training are all obstacles to the progress of the Iranian farmers. But, as mentioned,
efforts have been made to change and improve most of the following agricultural and farm conditions (Reforms of January 26, 1963). For example, distribution of crown lands to farmers, land reform setting a limit to the big estates and providing land for the peasants, the establishment of a Development Bank and Co-operative Organization to grant financial and technical assistance to farmers, train rural teachers and village workers, and establish village schools and hospitals are all areas of concern.

The country's most important industry is the exploitation of oil fields, begun in 1909 and greatly developed in the last decade. Now Iran is the world's fourth largest oil producer and second largest exporter. Petroleum provides most of its foreign exchange and government income. Oil profits have financed an extraordinary modernization program of education, industrialization and construction.

Fishing and caviar also figure in the country's economy, along with the development of its mineral resources. The majority of the manual industries have continued and some of them have been greatly encouraged and improved. Wool and silk carpets are among the largest exports.

Education in Iran

Education in ancient Iran was designed to train children for constructive and useful services to society (Hashayekhy, 1970). This concept is clearly expressed in the statements taught to the children as part of their prayers to Ahura-Mazda or Ormazd--The Good Principle in the Zoroastrian religion.

In the Avesta (the sacred book of ancient Iran containing the
teachings of the prophet Zarathushtra, or Zoroaster (ca. 550 B.C.),
a number of verses similar to this one are written:

Oh Ahura Mazda grant to me a wise and well mannered child
who will be able to implement his/her duties in society.
A brave and honorable child who will assist others in
meeting their needs. A child who will strive for the
progress and prosperity of his/her family, his/her city,
his/her country, and to assist his/her righteous king.
(Carnoy, 1922, pp. 862-868)

Every parent desired children who would be an honor to his family
and country. Honesty and straight forwardness were most highly
valued, and purity was demanded.

Generally, education in ancient Iran was based on 1) service
to the society and country, and 2) service to the family and assisting
the parents. In the educational system of ancient Iran priority
was given to good manners and then to learning how to read and write.

In Achaemenid times (525 B.C.) the young men were taught not only
horseback riding, archery, hunting, and polo, but the value of truth and
how to distinguish between good and evil. After the Arab invasion and
the adoption of the Moslem religion, education was based upon the Koran
(Holy Book of the Moslem religion--the teachings of the prophet
Mohammed, 570?-632 A.D.). For many centuries Moslem priests taught in
schools called maktab, where the children memorized verses from the
Koran and learned to read and write and do simple arithmetic (Wilber,

After the discovery of steam power, Europe began to have power
and supremacy over the rest of the world. Early in the nineteenth cen­
tury various cultural and other French missions were sent to Iran to
assist in the establishment of schools, and during the second part of the
same century a great number of European military missions were called to
Iran. In 1851 the government, together with foreigners, established Darolfonan (polytechnic college), the first of its modern educational institutions, in Tehran. On a smaller scale other schools were founded in the large cities of Iran (Sadiq, 1931, p. 18).

Around the years 1836-1883, the Christian missions started their work and schools were established in the large cities by American Presbyterians, the French Lazarists, the Anglican mission, and in 1898-1899 Jewish believers of France established Alliance Francaise and Alliance Israelite. In 1853 a group of Iranian students was sent to Europe to complete their studies in different fields of learning. Meanwhile other relations with the French, helped to establish the cultural influence of France in Iran. In 1897-1898 a number of Iranian notables formed a committee and opened a small number of schools in Tehran and other places and a year later these private institutions were placed under the Minister of Public Institutions ("Persia", 1910, p. 200).

Wilber (1963) states that "'Ministry of Education was founded in 1855, but the essential form of the present educational system dates from the organization of an Education Council in 1897" (p. 203). However it was not until 1911 that the first constitutional law of education was enacted, article five of which called for compulsory education for every Iranian child, starting at the age of seven. Meanwhile, the Ministry of Education was responsible for controlling the institutions at all levels. The Ministry of Education would establish schools, employ teachers, and approve all curricula, and education would be secular--independent of the religious leaders by the 1930's (Afzal, 1971, p. 212). However, due to World Wars I and II, and the lack of facilities, half of the children
aged seven were deprived of schooling.

The major educational reforms during the last twenty years occurred with the recent movement popularly called the "Revolution of the Shah and People of Iran," in 1963. Education has concentrated on the rapid expansion of educational opportunities, a more even distribution of basic education, and a multiplication of educational institutions. This movement has not only released the Iranian education system from isolation and obsolescence, but has also brought it to millions of people who had been deprived of formal education for generations. The establishment of the Free University is an excellent example of Iran's vision for the future, as Calvano (1976) states, "The University has adopted an operational system used nowhere else in the world" (p. 26). The Free University of Iran operates by means of a multimedia teaching system, teaching students at a distance, and developing a learning environment based near the place of the residence or work of its students. As a result, education in Iran has become an experimental and dynamic force in society and a significant source of educational change has been the constant flow of students going abroad for their higher education.

Iran is attempting to make a great leap in one generation from being a traditional society into modern industrial nationhood. Industrialization, however, is only the vehicle to move into the future; welfare and social justice are the objectives. "Today the world's second largest exporter of oil, Iran is using its oil revenues to modernize the country, with new ideas to improve the welfare of its people" (National, 1977, p. 17).

As discussed earlier in chapter 1, in 1963, as His Imperial
Majesty looking ahead, wrote: "The realization came to me that Iran needed a deep and fundamental revolution, which could ... put an end to all factors that caused injustice, tyranny, and exploitation and to all aspects of reaction, which impeded progress, and kept our society backward" (p. 20). The outcome of the "Shah and the People Revolution," as it is called today, has inspired some of Iran's most innovating new ideas. It provided great changes in the life of the Iranian citizens. Thus, the government of Iran decided to develop education and eliminate illiteracy, to strengthen education in all levels, and to develop professional, technical, and higher education. An education corps or literacy corps of youths with a secondary education who had been mobilized into an army was formed to teach the population in villages where there were no schools. As a result, the rate of illiteracy of 85 percent in 1960 was reduced to less than 50 percent in 1977. This resulted in a student population growing from 350,000 in 1950 to 8.5 million in 1977 (p. 20).

The basic structural pattern of education in Iran provides for five years of elementary, three years of guidance course programs, and four years of secondary stages. Higher education, including teacher education, is offered at a variety of universities, colleges, and pedagogical institutes. Vocational programs are available. Schools at all levels may be public, semi-public, or private.

Teacher Education in Iran

In 1918, Darol-Moalemin-e-Markazi or Normal School--the first institution for teacher education--was established and intended to prepare elementary school teachers. In 1928 it was transformed into an
institution of higher learning comprising a Faculty of Science and a Faculty of Letters under the name of Darol-Moalemin-e-Alee or Teacher College, which prepares teachers for the secondary level. Only the holders of Secondary School diplomas are admitted to teacher's colleges and universities. In 1974 the first University for Teacher Education was established and intended to prepare secondary school teachers, (University, 1975, pp. 5-8). At the present time, there are 111 normal schools for the training of elementary school teachers in Iran (UNESCO, 1972, p. 127). In addition to the University for Teacher Education, a number of government as well as private universities and colleges have programs for training secondary school teachers. Teachers in training receive free tuition and are subsidized with monthly payments by the government, and in return must sign a statement indicating that they will teach for at least five years after graduation.

The government is not only revising the school system's structure and curriculum, but is also striving to meet the mass educational needs and correct the educational deficiencies of both children and adults, particularly in rural areas where literacy training programs are emphasized. However, Iran has some specific problems in the field of education. These are: a drastic rise in student enrollment, a dearth of qualified teachers, a scarcity of suitable instructional materials, and a need for professionals and para-professionals to develop further the various stages of the education process. In order to fulfill the challenge of these national problems by means of a highly skilled teacher education program, the establishment of a strong instructional media program is a high national priority. Keeping this priority in view, the following philosophic base for an
In Chapter 2, while reviewing literature, some guideline principles were identified. While studying the experiences of the United States in the implementation of programs of instructional media centers, some more guidance regarding philosophy, purpose, organization, administration, plan and programs was available.

This study presents guidelines for assessing the adequacy and the quality of instructional media available to the students and faculty served by the media centers in the teacher education institutions of Iran. In the broad sense, instructional media are defined as the materials, the equipment, and other devices used in the processes of learning and education. Instructional media programs include all media (print, non-print, sound media, static visual media, moving audiovisual media, multi-media, games, simulations, computers and their outputs, self-instructional materials, microforms, and human resources). The emphasis in this study is, more particularly, on the organization and administrative structure with facilities planning of instructional media centers for teacher education in Iran. These centers provide alternative methods for assisting students to become competent in basic skills and also alternative methods of learning academic subject matters.

The institutions for teacher education in Iran should provide students and faculty members on campus with a media program that includes people, materials, equipment, facilities and environment, as well as purposes and processes. The media program should make the resources for teaching and learning accessible to faculty, staff and students and should provide the services necessary for the support of a program of preparing prospective teachers for a fast growing student population.
The student's success in achieving instructional objectives is dependent on access to materials. Both students and faculty members function better when instructional material programs are adequately conceived, staffed, and financed. The instructional media programs should express the educational philosophy of the institution they serve.

Media Centers Visited in the United States of America

Four major universities in Indiana and Michigan that are offering masters and doctoral programs in instructional media were visited and the following information was gathered:

Western Michigan University

The instructional media center is a part of the Division of Instructional Communication. This division is considered an academic support area and is governed by the university's vice-president for Academic Affairs. The Division of Instructional Communications coordinates and supervises the educational facilities and services of the university. Located within the division are the following agencies: Audio Services, Audio-Visual Center, Graphic Services, Office of Instructional Development, Motion Picture Services, Multiple Audio Distribution System, Photographic Services, Technical Services, Television Services, and WMUK Radio.

The goals for the Office of Instructional Development are: (1) to facilitate on-going instructional programs, (2) to develop and promote instructional innovations, (3) to promote and improve instructional support services, and (4) to present workshops and presentations by staff or visiting authorities as part of the faculty enrichment program.
Andrews University

The audio-visual center at Andrews University is a part of other instructional support services on campus. These services are the James White Library, the Teaching Material Center, and the Computer Center.

Some objectives of the audio-visual center are that the audio-visual center of Andrews University has been established to provide comprehensive instructional service to faculty and students. The primary purpose of these services is to offer direction and assistance in planning, selecting, evaluating and providing instructional media through a multidisciplinary approach. The center is governed by the vice-president for academic affairs. The services offered by the center are:

1. **Utilization Services:** Assists the teacher in scheduling the use of instructional equipment and media throughout the university.

2. **Instructional Media Production Services:** Offers the services of producing instructional materials for teachers. The center facilities are available to the teachers or teachers-in-training, and after proper instruction they may produce their own materials.

3. **Instructional Design Service:** A service primarily to help the teacher produce his own ideas for class presentation. This service will help the instructor who has some special need for materials to be developed.

4. **Audio-Visual Resource Center:** A small number of visual aids will be housed here. These aids may be requested by the teachers when they are needed in the classroom. A catalog of the materials to be found in the center will list the slides, filmstrips, motion pictures, tapes, and records that are available.

5. **Public Entertainment Showings.** The center will be responsible for projection of all entertainment films shown on campus that have been
approved through the proper channels.

6. **Public Address Systems:** The center will be responsible for the operation of the public address systems for the university.

7. **Student Use:** Student groups desiring to use the services of the center should make their request through their faculty sponsor. Charges will be made to groups on the same basis as they are made to departments using the services of the center.

**Michigan State University**

Instructional resources center of the college of Education is governed by the vice-president of academic affairs. Its goal is to assist faculty and students in the improvement of the teacher-learning process through the effective use of instructional technology. The center's purposes and functions are as follows:

1. To help sustain and improve the undergraduate and graduate preparation and professional educators by providing the faculty and students of the college of Education with:

   (a) Instructional and program development media related consultation.

   (b) Facilities for special multi-media for individual and group use.

   (c) Selected and representative instructional materials and media hardware and graphics production equipment.

   (d) Associated staff support services.

2. To serve as a demonstration center illustrating the operation and function of a multi-media resource center on the college level for faculty, students, local teachers and alumni. Hardware and software comparable to that usually found in elementary and secondary schools will be available in the center in so far as possible.

3. To support the operations of institutes, clearinghouses or other institutions that may from time to time be housed within the IRC as determined by the dean of the college of Education.

4. To provide other adjunct central services or equipment for the college of Education as determined by the dean of the college, the director of the IRC and the suggestions of the IRC advisory committee.
Indiana University

The Audio-Visual Center is governed by the dean of Learning Resources who reports to the executive vice-president. The Center is made up of four sub-divisions: (1) instructional services, which includes audio, graphics, motion and still pictures, and workshop and institute sub-units; (2) development and special projects, which includes course development and project evaluation sub-units; (3) media resources, which includes materials evaluation, booking and inventory center, media information retrieval services, and shipping sub-units; and (4) field services.

The director of the center stated the mission and objectives of the center as:

It is the mission of the Audio-Visual Center, working with other learning resources programs throughout the Indiana University system, to assist the full range of academic and administrative clients in the planning, implementation and evaluation of strategies utilizing technological processes and products designed to contribute to the teaching/learning, research and public service activities of the University. The Center has the following specific objectives:

1. To assist academic clients in the identification and completion of projects involving learning resources.

2. To provide design and production services that will enable the University community to utilize a wide range of media.

3. To assist with the development, installation and maintenance of new teaching/learning strategies and delivery and utilization systems.

4. To provide continued development of film library holdings and other media collections.

5. To provide non-credit short courses, workshops and institutes for University, State, national and international clients.

6. To provide consultative and informational services on the availability of learning resources materials and on the design of facilities.

Based on the preceding information and literature reviewed, the proposed model in Chapter 5 was developed.

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CHAPTER V

RECOMMENDED MODEL

Proposed Philosophy for Media Centers in Iran

On the basis of the literature research and careful analysis of the materials included, the following recommended model is presented for discussion, consideration, and possible adoption.

To Facilitate the Communication of Ideas

Education is a creative process, designed to develop desirable spiritual, intellectual, social, and physical skills. As the needs of the youth of Iran change, they must be able to explore fields of knowledge which will enhance their potential and be relevant to them. They not only need to learn skills of reading, computation, observing, listening and social interaction, but also develop a spirit of inquiry, self-motivation, self-evaluation and self-discipline. These youths who become educators should be able to communicate their ideas to their prospective students. Instructional media programs should efficiently meet the needs of the students and faculty and be organized and managed for users. Communication is the teacher's business. It is the process of giving and receiving messages.

To Provide Quality Education

The teachers in this technological age have an assortment of tools for building learning situations and opportunities. The competent
teacher employs a great variety of instructional media, and must use them effectively. Properly designed instruction, continuously selected and evaluated media facilities, software, and hardware can shape the learning environment. This can be facilitated through establishing an instructional media center. This center, through the use of modern technology, can provide quality education in the institution. This center should provide the best opportunities for discovery by both individual and group effort, and can help make maximum use of existing resources to bring the cost of quality education down. Every facility, piece of material, equipment, or book should be selected, produced and used so that students are challenged to a dynamic participation in a free, exciting and enriched life. In this entire process the media program plays a vital role. Therefore, the use of the media center is one of the best methods available to provide for quality education. Various researchers in the field of instructional media have proved beyond doubt that the carefully planned use of instructional media facilitates the learning process, "given a reasonably favorable situation, a pupil will learn, from any medium . . . This has been demonstrated by hundreds of experiments" (Schramm, et al., 1971, p. 15).

To Individualize Instruction

Students learn and progress at their own pace. No two are the same. In traditional teaching, these facts, even though known, cannot adequately be taken into consideration. If the prospective teacher is prepared to handle different instructional techniques and materials, a broader range of the learner's individual differences can be accommodated. In addition, greater interest in learning can be
developed. The emphasis is upon the improvement of the individual student with a wide choice of materials to facilitate his/her learning. Education is a matter of individual human growth and development. The instructional media center can help the practicing teacher to master various instructional strategies and develop his competencies to handle various multi-media instructional material and equipment in a way that will benefit his learners. He can really become the manager of learning, by making available many materials in a variety of formats to suit the specific, individual needs of the learner.

To Update Instructors

The instructional media center is a service in the cause of education. It can provide new ideas, can keep educators abreast of new developments, can support and supplement allied educational services. It will give each student unique experiences in learning. Research and discovery skills will develop to a high level the ability to seek, relate, and analyze information and apply knowledge. The media center is a place where ideas can grow, be exchanged, and find expression in materials that can be shared. The development of media has now reached a level that will permit rapid expansion of application and of further innovation.

To Produce Instructional Materials

The instructional media center can guide, help and produce new instructional material suited to the specific needs of the learners. The new instructional materials so produced can reflect the life and culture of Iran. It can be more effective because it has been developed out of the felt needs of the educational process.
To Evaluate and Validate Instructional Material

The instructional media center can evaluate, re-design and produce relevant and validated instructional materials for extended use.

To Centralize the Instructional Materials

The instructional media center can create a system that can centralize procurement and control of instructional material, so that they are readily available. This will make the process faster and more economical as more pieces of software and hardware are bought at the same time.

To Maintain the Instructional Materials

The instructional media center can also maintain these materials so as to extend their useful life while keeping them in continuous use and providing considerable economic benefit.

While assuming leadership in the field of instruction, the instructional media center in Iran should also function as an integral part of the education process in general, and teacher education programs in particular, serving the pre-service and in-service teacher training needs of the country. Such a center can also help the community in health education, social education, agricultural education, industrial training, et cetera.

Purposes of Instructional Media Centers for Teacher Education in Iran

In the environmental context discussed earlier, what can instructional media centers do for the education of the teachers in
Iran? As stated earlier in this chapter, the number of the school-going population is increasing. Enrollment in schools is always on the increase. Therefore, there is a growing need for teachers to teach that growing number of students. Teachers must be added to resolve the situation. Even after the few teacher education projects going on at the moment, the country will not be self-sufficient in the near future, so far as the preparation of Iranian teachers are concerned.

For Orientating Untrained, New Teachers

The instructional media center should also take the responsibility of developing new orientation programs for the training of new teachers for their initial classroom experience. This program should be geared toward orienting these new teachers to the classroom experience, giving them a feel of the classroom situation before they actually start teaching in the school. If the programs are functionally developed, the center can be a great help in the acute and growing problem of preparing Iranian teachers.

For Pre-service Training of Teachers

The instructional media center can help in the pre-service training of teachers by exposing them to and equipping them with the latest instructional materials. It can develop in them a competency to handle individual differences in the classroom through mastering a multi-media approach to facilitate the use of various strategies in individual and group learning situations. The teacher will move into the field with an assurance that there is an organization to help keep him abreast of the latest developments in the field of education and to guide him in his specific needs of teaching a particular group of
students. This will increase his confidence and thus ensure confident, better teaching.

For In-service Training

The instructional media center can be of a great help in bringing the Iranian teachers up-to-date regarding the newer material, hardware and software, and the latest techniques tried out elsewhere in the world. It can also help them develop competencies and skills to handle problems developing in the classroom situation with ease, through the use of a multi-media or inter-media approach. It can also bring to them various experiments tried out in other schools of Iran and thus, can serve as an information dissemination and catalytic agency.

For Facilitating Instruction

Not only in the training of teachers, but with its resources and facilities, the center can establish a favorable climate for the application and development of technology in the instructional program in the country. This can be done by organizing courses and seminars in instructional development, making decisions as to where and how to use teacher presentation, discussion, media presentation, programed learning sequences.

For Curriculum Development

Curriculum development is another area in which the center can have a positive influence. By promoting and assessing experimentation and innovation, its resources and staff can give specific guidance and suggestions in curriculum development. The key to the selection of the appropriate educational materials to use in any particular teaching
situation is the relative effectiveness of that medium in accomplishing the desired educational objectives. Iran today is faced with the problem of developing curricula suited to the country's specific needs and reflecting its own culture. The center can be of great help in this endeavor by providing technological support for research, public interpretation, and administration.

For Maximum Utilization

The materials and equipment should be stored and maintained in one place. They should be easily accessible for maximum utilization. There should be less duplication when purchasing instructional materials and a saving of student and faculty time when searching for materials. There should be direct services of a staff member to work with students and teachers.

For Evaluating and Adapting
Instructional Materials

This center with its expert resources can help evaluate new instructional materials and systems, equipment and programs, and consequently improve them. It can also acquire foreign materials and adapt them to suit local conditions and requirements.

For Production of Materials Suited to the Needs and Culture of the Country

One of the most important needs of a nation is that of instructional materials suited to its own cultural background, its own vocabulary, and its own daily life. Since demand for such material is generally small, commercial firms tend to produce those that can be used in more than one country. These materials and equipment create some problems since they are inappropriate for
the needs of a specific country or culture.

With the help of the teachers of the country, the instructional media center in teacher training institutions in Iran could produce materials that depict Iranian background and its culture. Thus, it will be more suitable to the specific needs of the learner. Such materials could be developed, tested, corrected and mass-produced at the local centers to serve the unique needs of the country.

Instructional material could be improvised or prepared to enable the schools to use these materials readily. Iran could gain more value for its expenditure by avoiding the penalties of foreign exchange. In addition, local talents could be utilized and maintained. Thus, these centers could play a very important and vital role in making the country self-sufficient and independent in such crucial needs as well as in saving on foreign exchange.

For Special Care in Storage and Retrieval

In a tropical climate such as in Iran a very important aspect is the storing of the equipment. Heat and humidity can play havoc on optics, electronic equipment, and other sensitive material like photographic paper and films, etc. Proper care in these special situations can go a long way in lengthening the life of materials and equipment and in saving the material. Over and above that, the materials can be stored in the center in a way so that the needed materials are easily available. Persons specializing in storage and retrieval systems can be of great help in the rapid retrieval of the material. If the retrieval system is defective, the whole program can be ruined. Further, the center, with its experts in the field, can guide schools and other
institutions regarding the care, storage, and retrieval systems of instructional materials.

For the Spread of New Ideas

Before a central organization, the center is in a better position to identify various new programs and experiments that have been tried out in schools of the country. Also, the center gets information regarding the latest ideas and developments in the field. The center, then, is best equipped to disseminate knowledge of new and useful ideas. The center can also organize a group of teachers to visit other schools where new experiments and ideas have been tried out, thus breaking down initial hurdles to change.

The above philosophies can be realized to serve the teacher education program through an instructional media center, provided the program is properly initiated, staffed, and organized.

The basic principles were developed in Chapter 2 from the sources reviewed, and the experiences obtained from visiting media centers in the United States; the basic philosophy for establishing an instructional media center for institutions for teacher education in Iran was discussed in the earlier part of Chapter 5. From this philosophy the purposes for the instructional media center for teacher training program in Iran was developed.

Therefore, the primary responsibilities of the instructional media center of institutions for teacher education in Iran are:

(1) to offer opportunities for internships, pre-services, and in-services for undergraduate and graduate students and those who wish to gain experience in the instructional development and instructional
media support areas; (2) to support and assist education faculty with their instructional programs and to help their students by providing appropriate instructional materials, hardware and instructional assistance needed to meet course objectives; (3) to provide opportunities for future media administrators to organize and manage media centers in schools of all levels; (4) to disseminate to the total faculty information about new teaching methods and instructional improvement programs; and (5) to develop academic programs, courses, and workshops related to media and the learning process.

Based on these philosophies the following recommendations are made to develop a model instructional media center for teacher education in Iran.

Recommendation 1: An Effective Instructional Media Center for Teacher Education Be Established

Institutions for teacher education in Iran should provide an instructional media center on each campus, with a media program of the highest caliber representing a combination of resources that includes people, materials, equipment, facilities and environment, as well as purposes and processes. This media center should serve as a clearinghouse for various kinds of information related to learning resources and the improvement of instruction. The media center should be affiliated with other similar services throughout the country in order to maintain a leadership role in evaluating new instructional strategies. The media center must provide an organized, accessible collection of print and non-print materials, and equipment necessary to meet instructional and individual needs of faculty and students. The center should be actively involved in the pre-service and in-service teacher training programs of
the country. In this respect the media center should maintain a close liaison with the educational institutions of the country. Since part of the teacher preparation work will be done at these centers, the centers should be involved in training present and future teachers.

The center should select equipment and materials for the institution that it serves so that the institution gets the instructional materials that it needs, and such materials should be valid, usable and compatible with the curriculum. A central purchasing agency should make the purchase economical, material compatible, available at the time most needed, optimally used, and avoid unnecessary duplication. This center should also keep the requisite supply of spare parts so that the equipment may be maintained for maximum use.

The center should be a learning ground for students and teachers who will attend to learn production and display techniques for various instructional materials, group and individual-student teaching methods as well as operation and maintenance skills for the equipment. Self-instructional production and utilization laboratories established at this center should help develop various competencies in the teachers and students in using multi-media.

The center should also have a full-fledged production program for instructional material. Creative ideas from teachers after field trials have proven their feasibility will be mass produced for distribution to the various departments of the institution it serves. Such items include graphics, maps, overhead transparencies, slides, audio and video tapes, models and other prototype materials.

At such a proposed center, new material and equipment should be previewed, tested, adopted or adapted before any performances. It is
here that new films and filmstrips would be screened and evaluated.

The center should house a well-stocked library of films, filmstrips, slides, audio and video tapes, cassettes, recordings and other materials.

The center should also maintain a mobile multi-purpose van. It should be used to replenish the supply of instructional material for the in-service programs, purchasing materials and equipment, recording programs off the campus such as micro-teachings, displays off the campus, and participation in national exhibitions.

The instructional media system should be organized as a separate centralized administrative unit and its functions interrelated with those of the departments involved.

Recommendation 2: An Effective Organizational Structure Should Be Developed

In Recommendation 1, regarding the various functions of the instructional media centers for institutions of teacher education was discussed, but the major problem for the continuity of progress remains in an effective, strongly structured organization founded on adequate planning. The following organizational structure is recommended.

Instructional media institutional committee. Chart 4 shows the hierarchal structure of the media organization proposed for institutions for teacher education in Iran. The institutional committee has to be established at the level of other committees of the teacher education institutions. This committee should be a policy making and a central coordinating body which provides the authorization to establish and develop the program and change agent factors that effect the personnel, space, equipment and administrative structure.
Chart 4. Structure for an instructional media hierarchy for teacher education.
Keeping the above factors in view, this institutional level body may best be composed of the following influential functionaries:

1. Vice-president for academic affairs of the institution or his/her representative.
2. Vice-president for business affairs or his/her representative.
3. Deans of colleges or head departments of the institution.
4. Director of the instructional media center.

The vice-president of academic affairs is responsible for the efficiency of the institution and curriculum development of the institution. The vice-president of business affairs is responsible for the administrative and financial development of the institution. If they are on the committee or represented by someone they deputize, their presence will facilitate many official processes and will impart priority and worthwhileness to the program.

The deans of the colleges or heads of the departments of the institution know the needs of the institution and its departments. They will give added strength to the media programs in the institution by their being involved in the program. Because they are intimately involved in the pre-service and in-service teacher training, they will bring their input and will be cooperatively involved in this committee and ensure its success.

The director of the instructional media center would execute the program planned at the administrative level and would be in close contact with the various departments of the institution. He/she will be a professionally competent person who reports to this committee the policies mandated by the administration. The director of the instructional media center is the central figure; his qualifications require
that he/she be professionally competent in his/her field to ensure efficient guidance to the committee. This will ensure a continuity of action.

It should be the responsibility of this committee to determine that all the requirements of the institution are met. New needs are looked into as they arise and appropriate measures will be initiated to ensure that the institution gets its materials promptly. This committee should:

1. Identify the needs of the institution and locate the resources.
2. Develop the rationale for the media program for the institution.
3. Encourage maximum utilization of existing resources.
4. Acquire needed instructional material.
5. Plan effective and efficient use of the instructional material.
6. Determine that optimum use is made of the existing resources and that financial aid is spent judiciously.
7. Acquire extended consultation help from other national or international organizations at the initial planning stage and continue consultations to analyze and evaluate the ongoing programs.

In summary, this committee should be a policy-making body for the entire instructional media program of the institutions for teacher education in Iran and should meet quarterly or semi-annually.

Instructional media committee. Next to the institutional committee for the instructional media center should be the media committee. An influential committee at this level should be useful in implementing the program as envisioned by the institutional media committee. The decisions of this committee will be very crucial because its members will be in close contact with the actual users of the media program. This com-
mittee should provide useful feedback for the institutional media committee.

Keeping the factors in mind that were discussed earlier about the role of the media centers in institution for teacher education, this committee should be composed of the following people:

1. Director of the instructional media center.
2. Instructoral body of the media programs.
3. Heads of the departments of the media center.

The director of the instructional media center should work as a liaison between the institutional media committee and instructional media committee. He/she act as the chairperson of the committee. He/she should supervise the correct use and maintenance of the equipment and materials.

The instructoral body of the media programs would be professors who would be in close contact with the actual users of the media equipment and materials. They would be directly and totally involved in teaching, pre-service, and in-service teacher training. They would bring useful input from a different angle and viewpoint regarding the effect of various media, their appropriateness, level of complexity, practicality, to this committee.

Various heads of the departments of the media center should be able to integrate the media in the educational program of their subjects or departments. They should also be able to bring back information regarding the effect of various media, their media needs, suggestions, etc., to this committee for transmission. These departmental heads should also bring to the committee various experiments, improvisations, prototypes, tried out in their subject areas.

Instructional media committee should be responsible for out-
lining the media program for the institution they serve, send the requirements and courses to the institutional media committee well in advance so that the institution receives what is needed when needed.

This committee should be actively involved in the pre-service and in-service training programs of the institution.

This committee should select equipment and materials that are needed, valid, usable, and compatible and recommend them to the institutional media committee.

This committee should meet at least once a month.

Organizational structure of the instructional media center. The various functions that an instructional media center can fulfill were discussed in Chapter 2 and earlier in this chapter. Based on these functions the following organizational requirements are recommended.

The recommended instructional media center should have a centralized organizational structure. The centralized media center suits the teacher educational institutions more than the other recommended patterns. This pattern provides a wider range or variety of instructional resources and services. The centralized media center allows close control of instructional materials such that maximum use of the materials without unnecessary duplication can be achieved.

Chart 5 presents an organizational structure for the media center and various departments within the center.

Qualifications and job descriptions of major administrative personnel for an instructional media center. Job descriptions and qualifications for the main office holders for the instructional media center for institutions for teacher education are given below.
Chart 5. An organizational chart for an instructional media center for teacher education
Director of the instructional media center. If media centers for teacher education in Iran are to continue to grow and prosper, they must have qualified leadership for the most important part of every media center is the media director. The instructional media director is the head architect of this program. The director should be responsible for a variety of professional and creative obligations which involve instructional and related programs of the institutions. As a link between the different departments of the institution the director seeks to secure understanding, acceptance, and support internally and externally, for the benefit of the total institution program. The director recognizes that the only visible business of the institution is the education of people. This position should be placed directly under the supervision of the vice-president for academic affairs or president of the institution. The director should hold faculty rank as an associate or full professor, should be considered the equal of a dean or at least a department head, and should have a very broad educational background and experience in the field of instructional technology and not merely in the audio-visual field. The director should have considerable experience in curriculum development, a high degree of administrative ability, program development ability and demonstrated leadership in implementing educational programs. The director should have knowledge of the techniques of selection, evaluation and knowledge of fundamentals of equipment operation, and should have a knowledge of leadership skills, knowledge of teacher's and pupil's needs, interests, and abilities, and possess good human relations.

The number and specializations of professional and supportive staff will vary from one institution to another. Depending upon the
size and programs of the institution, the job descriptions, qualifications, the physical facilities and the scope and nature of the services performed.

**Characteristic duties of the instructional media center director.**

1. Coordinates and administers the entire instructional media system.
2. Plans future developments.
3. Establishes policies.
4. Reports to the vice-president of academic affairs.
5. Designs new quarters.
6. Recruits, selects, interviews and trains new staff members.
7. Prepares budgets.
8. Holds instructional media committees and other related meetings.
9. Directs the activities and establishes new programing philosophy.
10. Plans, organizes and carries out new projects for the media center.
11. Develops and implements departmental policies and procedures.
12. Maintains liason with institutional media committee, departments, and colleges of the institution.
13. Serves as an advisor to the institutional media committee.
14. Assumes principal responsibility for building strong relevant collections of educational media and media equipment closely related to curricular requirements of the institution for teacher education which he serves and goals set up by the institutional media committee.
15. Evaluates productions with staff.
16. Advises and assists staff in technical or programming problems.
17. Consults with faculty and staff on the services on instructional media center.
18. Selects, acquires, originates, catalogs and stores information, and distributes it by a variety of equipment and exhibit methods.
19. Introduces and evaluates new technology.
20. Improves and revitalizes services to the entire institution.
21. Provides educational and logical support for the general improvement of instruction and to increase efficiency of teaching and learning within the teacher education institutions.
22. Instructs faculty and students in the utilization and operation of instructional equipment and materials.
23. Creates opportunities for faculty members to improve their instruction within the context of new ideas.
24. Develops academic programs, courses and workshops related to instructional media and the learning process.
25. Develops workshops and presentations by staff as part of the faculty enrichment program.
26. Maintains planning and consulting instructional media facilities for other higher educational institutions with wide use of instructional materials, and advising them in the purchase of specialized media equipment and materials.
27. Provides for the research and development of instructional material.
28. Supervises the field-test of the instructional material produced by the teachers before being mass-produced.

29. Is responsible for ordering all instructional materials and equipment to be used in institution which he serves.

30. Works in close cooperation with the colleges and departments of the institution for more effective use of multi-media in teacher preparation programs.

Qualification of the instructional media center director. The instructional media director must hold a doctoral degree for serving in universities and/or masters degree for serving in normal colleges. These degrees should preferably be in instructional technology, general education, curriculum development, or audio-visual education. The director should have a minimum of five years teaching experience at the secondary or college level, and should be well versed and up to date regarding the latest instructional materials in the field.

Departmental heads of the instructional media center. In chart 5, under the supervision of the instructional media director, several departments are recommended. These departments should be staffed by competent people who should administer the affairs of the department and give direction to its programs. Every department is responsible for implementation of specific duties which need specific knowledge and skills. Those departments, divisions, or units are service agencies established to help faculty and staff improve the quality of institution's educational programs. The objectives of these departments include facilitating on-going instructional programs, developing and promoting instructional innovations, and promoting and improving instructional support services of institutions they serve. Therefore, the heads of the departments
should serve as consultants and resource persons for the institution's faculty members and students on the development of instruction through academic support services. The departmental heads general direction should be received from the director of the instructional media program. These departmental heads should be members of the instructional media committee.

**Characteristic duties of the heads of the departments.** The heads of the departments of the media centers of institutions for teacher education should:

1. Manage the operations of their departments.
2. Develop and implement policies and procedures for their departments.
3. Assist faculty members in the design, production and evaluation of innovative curricula and methods.
4. Recommend the purchase of new equipment and materials for their departments.
5. Interview, select and evaluate performance of support staff.
6. Instruct and advise support staff on methods and procedures.
7. Analyze instructional methods and techniques and recommend adjustments and/or improvements.
8. Plan, conduct demonstrations and in-service training sessions for faculty on new instruction devices, materials and teaching models.
9. Serve as a laboratory adjunct for the students who wish to pursue a subject accomplishment.

**Qualifications of the heads of the departments.** A bachelor of science degree, or an equivalent combination of education and experience in his specific area, is necessary for the head of the graphics department.
A master's degree in library science, or an equivalent combination of education and considerable experience in education and instructional development, is necessary for the head of the library department. He/she should have faculty rank and privileges of instructor or assistant professor.

A master's degree in mass communications, or an equivalent combination of education and considerable experience in the planning and production of radio and television programs, is necessary for the head of the technical facilities department. He/she should have faculty rank and privileges of instructor or assistant professor. He/she should put at the disposal of the teaching faculty all media, technology, services and systems which will enhance the effective communication of ideas in teaching-learning.

A doctoral degree in instructional media, audio-visual instruction, or equivalent combination and considerable experience in teaching instructional media program, is necessary for the head of the instructional unit. He/she should have faculty rank and privileges of assistant professor.

The instructional unit is the educational wing of the center. Its members jobs primarily will be:
1. Teaching different courses in educational technology.
2. Planning and executing the educational programs of the center.
3. Planning and executing the pre-service and in-service training programs for teachers.
4. Working with prospective teachers in analyzing and evaluating instructional problems involving the use of instructional materials and developing techniques and materials to achieve instructional objectives.
Instructors or teachers are professional members of the instructional media center. They are accountable for the operational effectiveness of the center program. Therefore, they may be selected as the heads of the departments of the media center.

The above mentioned four positions are crucial because as the department heads the activities and programs of the department will greatly depend upon their ability to plan, execute and provide leadership to the entire program. It is the cooperative work of these four persons with the director of the instructional media center who will assure the success of the center and its entire programs.

The selection of the department head should be based upon the following: (1) an ability to work with people; (2) a knowledge of subject matter; (3) a knowledge of educational methods and curriculum; (4) a recognition by department members as a leader; and (5) an interest in improving the department.

Since every professional staff member of the media center should have faculty status, they should be subject to all benefits, rights, provisions for professional development, and compensation at the same level which is in effect for the teaching faculty. Their academic rank should be recognized at the same level and on the same criteria as for other faculty members. It is their obligation to meet all faculty and professional requirements including advanced study, research, publication in learned journals, membership in professional organizations, etc., which the institution expects of faculty members.

The other positions named in chart 5 are for professionals and para-professionals who are specialists in their specific fields. Their job descriptions and duties should be determined by the heads of the
departments based upon the specific needs for the particular institutions in which the center is located.

Recommendation 3: Adequate Physical Facilities for Instructional Media Program Should be Provided

In planning for the building or purchasing of equipment for the instructional media center, employment of a knowledgeable media specialist or an educational consultant will provide a far more functional and useful building operation and should be given serious consideration. Staff, faculty, student representatives, and others who will utilize the facilities should also be consulted. It is the responsibility of the media director to design and implement explicit, well-articulated program specifications by the participation of media staff and instructional faculty of the institution.

The center must provide adequate space and appropriate physical arrangements and construction for the full utilization of specialized equipment. The media program must be easily accessible to the faculty, staff, and students and must provide the resources of teaching and learning necessary for support of a sound program for preparing competent teachers for the country.

The physical facilities for such centers should be as capable of change as the program it serves. The appearance of a building should agree with the taste, culture, weather, climate and architecture of the people of Iran, and serve their purposes. Any identifiable activity space should be studied to determine the following factors which are recommended by Gardner (1965):

1. Philosophy and objectives.
2. Activities to be housed.
3. Persons to be accommodated.

4. Space requirements.

5. Space relationships.

6. Equipment to be housed.

7. Special environmental provisions. (p. 100)

These factors can help the planner in his thinking and decision making in planning the facilities and building of media centers for institutions for teacher education in Iran. It is necessary to get answers to all the above mentioned factors before proceeding with the building construction and purchasing equipment program.

The writer does not attempt to provide construction details for the media center building because such plans should be provided by the appropriate authorities of the institutions for teacher education, the architect and other related departments and persons.

It is the purpose of the writer to give some general schematic plan for determining the layout of space relationships, (see chart 6).

A special committee of educators, administrators, and planners appointed by the institution for teacher education should first meet and try to find out the special requirements regarding utilities, special services like climate control, external and internal traffic flow, other factors which effect services, etc., and the type of furniture required.

The committee should then meet with the architect and explain to him the various specific requirements. Stewart (1970) has suggestions regarding the points that should be clear to the architect so that he can make his building plans to suit specific requirements. "Architects are competent to design instructional media spaces if the spaces to be

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Chart 6. Space relationships
designed are described in detail and in terms of how the space and its required equipment will be used" (p. 64). The architect will then make some preliminary plans and sketches for the committee. The committee will discuss the plans and sketches thoroughly and then the architect will draw new plans in light of the discussions. This process might continue as long as needed until the desired plan is achieved.

The building for the instructional media center of the institutions for teacher education in Iran should be adequately equipped to carry out the present program, as well as its future needs. The building construction should also take into consideration future extensions to the existing building and space facilities necessary for certain types of equipment. For example, television equipment, listening and viewing equipment, and use of other types of electronic equipment.

Location and Space. The instructional media center should be located in relation to the general learning area. It should provide centralized space and facilities for individual study of all types of resource materials housed in the center. From the user's point of view, they have to go to only one place on the campus, the instructional media center, to locate all kinds of materials and equipment. They can ask advice, and then select the kind of materials and equipment which best serves their purposes. They feel free to go to the center for using the reference books, reading, viewing films and filmstrips, or listening and viewing the recorded materials, using reading machines for individual study and other advantages. All these should be available to them in different areas of the instructional media center.
Because diverse activities will be performed in the media center, adequate space must be provided and arranged to meet these activities. According to the standards of the American Library Association the media center area should accommodate a minimum of three percent of the student body at any time. The location of the media center should provide easy access to its many resources. It should be open every minute of the school day.

In setting up the plan for media centers the following should be considered:

1. Site requirements
   a) Desirability
   b) Size and/or capacity
   c) Flexibility
   d) Accessibility
   e) Safety
   f) Economy

2. Space requirements
   a) Administrative space
   b) Classrooms
   c) Library space
   d) Work space
   e) Seminar rooms
   f) Listening and viewing space
   g) Studios
   h) Storage space

3. Provision for future expansions

   In a nation of the nature of Iran, which is changing rapidly,
the design should be flexible. In case additions are needed for growth, and the center has a flexible design, the additions can be accomplished with minimal problems.

The above information concerning main space allocations are provided below as a general suggestion and naturally should be changed according to the special needs or the number of the users of the center.

Administration space. Adequate spaces will be needed for the administrators mentioned earlier in this chapter. This will include the director, heads of the departments, and various professionals and para-professionals of the media center. Therefore, the following square meterage for the office spaces is requested: (meter system is used in Iran--1 square meter is equal to 10.73 square feet).

TABLE 4

<table>
<thead>
<tr>
<th>ADMINISTRATION SPACES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Director's Office</td>
<td>22 sq. m. (about 236 sq. ft.)</td>
</tr>
<tr>
<td>Department Head's Offices @</td>
<td>20 sq. m. (about 214 sq. ft.)</td>
</tr>
<tr>
<td>Media Specialist's Offices @</td>
<td>10 sq. m. (about 107 sq. ft.)</td>
</tr>
<tr>
<td>Technician's Offices @</td>
<td>10 sq. m. (about 107 sq. ft.)</td>
</tr>
<tr>
<td>Secretaries Offices @</td>
<td>9 sq. m. (about 100 sq. ft.)</td>
</tr>
</tbody>
</table>

Multi-purpose rooms. These centers are to be involved in the teaching, in-service and pre-service programs of the institution. Enough classrooms, seminar rooms, auditoriums, previewing rooms and exhibition areas where classes, seminars and workshops can be conducted will have to be provided (see table 5).
TABLE 5

ALL-PURPOSE ROOMS

<table>
<thead>
<tr>
<th>Description</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms for 40 @</td>
<td>82 sq. m. (about 880 sq. ft.)</td>
</tr>
<tr>
<td>Seminar Rooms for 25 @</td>
<td>46 sq. m. (about 494 sq. ft.)</td>
</tr>
<tr>
<td>Auditorium Per Person</td>
<td>0.70 sq. m. (about 7.5 sq. ft.)</td>
</tr>
<tr>
<td>Previewing Rooms @</td>
<td>28 sq. m. (about 300 sq. ft.)</td>
</tr>
</tbody>
</table>

An auditorium for multi-purpose use, such as previewing films and slides, conferences, and small and large group sessions is a necessity for the center. The concept of this area can be that of a flexible auditorium type; depending upon the audience, the auditorium can be enlarged or reduced in area. The users will be able to preview films in different group sizes. The auditorium should be equipped with adequate air-conditioning equipment.

Exhibitions can take place in either seminar rooms or the auditorium, or the building should be designed so that the hallways and other free spaces can be developed for this purpose. These spaces can be utilized for exhibiting work of the trainees, publications of the center, new materials, ideas, and concepts also, and thus can serve as a source of causal learning for the visitors. These spaces have to be specially designed for this purpose.

Media library. The media library will follow the normal chain of command within each library, and shall be under the general supervision of a media specialist skilled and knowledgeable in the use of non-print materials, able to provide advice and counsel to users, and possessing knowledge of the mechanical operation of the various types of equipment.
The media library program requires facilities for housing the non-print, both materials and equipment, collections, study areas occupied by students, staff and faculty, and adequate staff work space.

Housing the print and non-print materials and equipment in the media library requires various kinds of shelves, drawers, and cabinets with the addition of vertical and horizontal dividers in each. Films are usually stored in racks, and film loops are usually filed in metal filing cabinets. Video tapes can be stored upright on wooden shelves, microfiche can be filed in metal filing cabinets, and audio cassettes can be stored in some specially devised stand.

Combinations of slides with tapes or cassettes and film-strips with tapes or cassettes, or other types of multi-media materials are frequently stored in special containers or cardboard boxes for shelving.

Access to materials and equipment should be closed to non employees for security and other problems.

The media library should have an efficient temperature and humidity control. This type of arrangement extends the life and operation of equipment and the safe storage of non-print materials. A steady temperature for storing software and hardware should be below 26° Centigrade (79° Fahrenheit), with humidity between 25 and 60 percent.

Ten to thirty foot candle lighting is recommended for audio-visual presentations. Individual wet carrels with the same light controlled system is necessary. To reduce noise, suggestions are to employ carpets and/or acoustical tiles. A floor space of 180 square meters (about 1931 sq. ft.) for staff and shelving, and 2.30 square meters (24.7 sq. ft.) per person is recommended for the study area.
Graphics and photographic studio. A large space accompanied with necessary equipment and supplies should be provided for the graphic productions. Here the trainees can work and develop their skills.

Attached to the graphic studio, the photography studio should be located. These two services can be complimentary, so the proximity will be useful so far as provision of utilities are concerned.

The center will rely heavily on slides, filmstrips, photographs, and motion pictures. Photography can make available to trainees more meaningful learning opportunities. Enough space for trainees to be able to work and practice should be provided. Two small darkrooms, with two counters, a double sink, cupboards, shelving and a continuous supply of hot and cold water, where the trainees can work, should be provided. At least one large darkroom where the production program of the center can go on without any disturbance should be provided. These units should be air-conditioned for the storage of sensitized materials like the films and photographic papers, and for a better production. Spaces for these facilities are suggested.

TABLE 6

GRAPHIC AND PHOTOGRAPHIC STUDIOS

<table>
<thead>
<tr>
<th>Service</th>
<th>Space (sq. m. / sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphics Work Space for 20</td>
<td>90 (about 966 sq. ft.)</td>
</tr>
<tr>
<td>Photographic Studio</td>
<td>50 (about 536 sq. ft.)</td>
</tr>
<tr>
<td>Darkrooms @</td>
<td>28 (about 300 sq. ft.)</td>
</tr>
<tr>
<td>Duplicating and Printing</td>
<td>50 (about 536 sq. ft.)</td>
</tr>
</tbody>
</table>

Simple instructional information will be produced by the center and limited copies will be needed for use in other departments of the institution. Therefore, the center will rely very heavily on duplicating...
and printing. Thus, provision should be made for quick duplicating in the center.

**Television studio.** Many teaching educational pioneers sincerely believed that television would bring greatly improved instruction, because they should transmit their instruction to unlimited numbers of students. An instructional TV and video tape equipment is necessary for instructional productions and micro-teaching purposes. Micro-teaching is recording both teacher and students in a lesson situation for later evaluation and discussion which make it possible to record, store, and duplicate video programs from educational television stations. This studio should be air-conditioned and sound proof; also heavy lighting should be provided in the studio.

A portable television production package such as the following will make possible local school production and for supervisory teaching training, or student teaching, which must be done away from power sources.

1. A battery-operated TV recorder with a small built-in monitor.
2. A small view finder vidicon camera with a zoom lens.
3. A sturdy tripod with a friction head.
4. A matching microphone.

About 150 square meters (1610 sq. ft.) of floor space should be provided for this unit.

**Sound recording studio.** Each media center should be provided with a professional level audio recording studio as well as a library of audio tapes. Enough space should be set aside for the trainees to work. This area should be sound proof. It is recommended that in such cases an acoustical engineer be consulted. Two highly equipped sound
recording rooms, each about 25 square meters (268 sq. ft.) of floor space, should be provided.

Workshops. Separate workshops should be provided, with simple machinery and equipment, for electrical and electronical work, woodwork, and metal work. Enough space should be provided for the trainee's work space. Depending upon the development and production of the program, the workshop facilities should be extended. Floor space for these workshops are recommended as follows:

<table>
<thead>
<tr>
<th>Workshop Type</th>
<th>Floor Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodwork Space for 15</td>
<td>70 sq. m. (about 750 sq. ft.)</td>
</tr>
<tr>
<td>Electronical Space for 10</td>
<td>50 sq. m. (about 536 sq. ft.)</td>
</tr>
<tr>
<td>Metal Work Space for 10</td>
<td>50 sq. m. (about 536 sq. ft.)</td>
</tr>
</tbody>
</table>

Repair and maintenance shop. Given sufficient use, all equipment will eventually require repair. The center should have space and personnel available to carry on this maintenance and repair program. The space should be planned and equipped to handle some simple and urgent types of maintenance and repair services. Storage shelves for parts and stand-by equipment will be needed, plus space for repair and test benches. This area will need more high voltage current so provision for that should be made. A floor space of about 28 square meters (300 sq. ft.) should be provided for the repair and maintenance shop.

Computerized learning laboratory. Computerized instruction is already making important contributions in some institutions of higher learning in the United States. Such equipment is costly, but its values are such that it will, in the not too distant future, become standard
equipment for institutions for teacher education in Iran.

Millions of pages of printed matter have been microfilmed and have been indexed and cross-indexed by the electronic brain. For whatever the subject being studied, the computer will know the student's level of achievement and will give him/her information, tests, and drills accordingly. The computer will have solved the problem of individualized instruction and a computer keyboard will be available to every student.

 Provision should be made for floor space of at least 36 square meters (386 sq. ft.) for the computer system and its supporting staff.

The director and/or head of the departments of the instructional media center will ensure that all instructional materials and equipment and their parts in the center are properly cataloged, classified and stored for efficient retrieval.

**Recommendation 4: Efficient and Sufficient Materials and Equipment for Instructional Media Program Should Be Provided**

The instructional media center of institutions for teacher education in Iran should provide a core collection of materials and associated equipment needed to ensure adequate support of the media program. Such a program should have as its primary objective the provision of a maximum variety of instructional materials, equipment and strategies of use for the learners and learning managers it is designed to serve. The students in institutions for teacher education represent all strata of community and national life. To meet their needs and prepare them to become competent teachers, the collection must contain materials and equipment of all kinds and at all levels. The collections should be based on subject matter, demand treatment,
form, and combinations of these factors. The primary criteria for selection should be the value of the content relative to the needs of the users. Based on these factors and review of the literature, recommended guidelines for assessing the adequacy and the quality of the necessary equipment for centers are given in table 8.

The term trainee is defined as the number of students enrolled for the courses taught in the instructional media center for a particular semester or quarter.

Material collections. As mentioned above, selection of materials for the media center should be based on subject matter and the value of the contest. A quality collection of non-print material must be selected by the consultation of team leaders and instructors. Clearly, the goals of the curriculum and specific projects must govern material acquisition.

Due to the state of the field of studies and availability of materials, it is difficult to develop guidelines for all audio-visual materials. The following do make unique contributions to instructional programs and must be made available to instructors' use. Collections should contain a variety of subjects to support all areas of instruction.

1. Audio Materials (tapes, cassettes, cartridges and records). Extended collections should be provided for at least one to two items per users. The collections should cover the range of disciplines, particularly poetry, music, drama and other literature, speeches, lectures, et cetera.

2. Projected Still Pictures (slides, filmstrips, and transparancies for overhead projectors). Extended collections should be provided for at least two to four items per users. Either collected materials should be cataloged.
### TABLE 8

**LIST OF PROPOSED EQUIPMENT**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 mm Sound Projector</td>
<td>1 Per Every 20 Trainees</td>
</tr>
<tr>
<td>8 mm Sound Projector</td>
<td>1 Per Every 25 Trainees</td>
</tr>
<tr>
<td>8 mm Silent Projector (Super)</td>
<td>1 Per Every 20 Trainees</td>
</tr>
<tr>
<td>2x2 Slide Projector (Automatic)</td>
<td>1 Per Every 20 Trainees</td>
</tr>
<tr>
<td>2x2 Slide Projector (Sound)</td>
<td>1 Per Every 50 Trainees</td>
</tr>
<tr>
<td>2x2 Slide Projector (Auditorium Type)</td>
<td>2 Per Every Auditorium</td>
</tr>
<tr>
<td>Filmstrip and Slide Projector (Combination)</td>
<td>1 Per Every 20 Trainees</td>
</tr>
<tr>
<td>Filmstrip Projector (Sound)</td>
<td>1 Per Every 50 Trainees</td>
</tr>
<tr>
<td>Filmstrip Projector (Auditorium Type)</td>
<td>2 Per Every Auditorium</td>
</tr>
<tr>
<td>10x10 Overhead Projector (Classroom Type)</td>
<td>1 Per Every 20 Trainees</td>
</tr>
<tr>
<td>10x10 Overhead Projector (Auditorium Type)</td>
<td>2 Per Every Auditorium</td>
</tr>
<tr>
<td>Micro Projector Reader</td>
<td>1 Per Every 100 Trainees</td>
</tr>
<tr>
<td>Micro Projector Reader, Printer</td>
<td>2 Per Every Center</td>
</tr>
<tr>
<td>Opaque Projector</td>
<td>1 Per Every 30 Trainees</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>1 Per Every 50 Trainees</td>
</tr>
<tr>
<td>TV Receiver</td>
<td>1 Per Every 60 Trainees</td>
</tr>
<tr>
<td>Video Tape Recorder</td>
<td>1 Per Every 60 Trainees</td>
</tr>
<tr>
<td>Video Tape Recorder (Portable)</td>
<td>3 Units</td>
</tr>
<tr>
<td>Closed-Circuit TV</td>
<td>1 Studio Per Institution</td>
</tr>
<tr>
<td>Radio-Receiver (AM, FM)</td>
<td>1 Per Every 40 Trainees</td>
</tr>
<tr>
<td>Projection Screen (70 by 70)</td>
<td>1 Per Every 3 Projectors</td>
</tr>
<tr>
<td>Projection Screen (Large, Automatic)</td>
<td>1 Per Every Auditorium</td>
</tr>
<tr>
<td>Projection Screen (Portable)</td>
<td>6 Units</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity Per Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic Learning Lab</td>
<td>1 Lab Per Institution</td>
</tr>
<tr>
<td>Dry Mount Press and Tacking Iron</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Paper Cutter (Different Sizes)</td>
<td>3 Units Per Center</td>
</tr>
<tr>
<td>Transparency Production Equipment</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Mechanical Lettering</td>
<td>3 Units Per Center</td>
</tr>
<tr>
<td>Darkroom Equipment</td>
<td>As Required</td>
</tr>
<tr>
<td>16 mm Motion Picture Camera</td>
<td>5 Units Per Center</td>
</tr>
<tr>
<td>8 mm Motion Picture Camera</td>
<td>8 Units Per Center</td>
</tr>
<tr>
<td>35 mm Camera</td>
<td>12 Units Per Center</td>
</tr>
<tr>
<td>Rapid Process Camera</td>
<td>4 Units Per Center</td>
</tr>
<tr>
<td>Duplicator Machine</td>
<td>3 Units Per Center</td>
</tr>
<tr>
<td>Copying Machine</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Typewriter</td>
<td>3 Units Per Center</td>
</tr>
<tr>
<td>Copy Camera</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Filmstrip Viewer</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Slide Viewer</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Film Rewinder</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Film Splicer (8 mm and 16 mm)</td>
<td>4 Units Per Center</td>
</tr>
<tr>
<td>Tape Splicer</td>
<td>4 Units Per Center</td>
</tr>
<tr>
<td>Projection Carts</td>
<td>15 Units Per Center</td>
</tr>
<tr>
<td>Slide Reproducer</td>
<td>2 Units Per Center</td>
</tr>
<tr>
<td>Light Table for Sorting Slides</td>
<td>3 Units Per Center</td>
</tr>
<tr>
<td>Carrels (Wet)</td>
<td>1 Per Every 5 Trainees</td>
</tr>
<tr>
<td>Woodwork Equipment</td>
<td>1 Set Per Center</td>
</tr>
<tr>
<td>Metalwork Equipment</td>
<td>1 Set Per Center</td>
</tr>
<tr>
<td>Electronical Equipment</td>
<td>1 Set Per Center</td>
</tr>
<tr>
<td>Van</td>
<td>1 Unit Per Center</td>
</tr>
</tbody>
</table>
3. **Projected Motion Pictures and Video Tapes** (16 mm and 8 mm motion pictures, film loops, and video tapes and video cassettes). These items can be housed either on separate shelves or 16 mm films and video tapes and cassettes may be in one section and 8 mm and film loops in a different section.

4. **Multimedia, Pictures and Prints** (still pictures, maps, charts, posters and professional books and pamphlets). These items are more specialized in nature and should be acquired as the educational program requires them.

5. **Educational Resources Information Center** (ERIC). The writer strongly believes that every instructional media center related to educational institutions should have in its possession a complete collection of Educational Resources Information Center (ERIC) system as well as microfiche-readers and reader-printers. ERIC was originally conceived in the United States Office of Education in the mid-1960s as a system for providing ready access to educational literature. The 140,000 titles of the ERIC microfiche collection covers an information system which makes available unpublished, hard-to-find documents on all phases, levels, and subject areas of education. Sixteen decentralized clearing-houses each focusing on different facts of professional education, locate, acquire and organize these materials for use by students, researchers and others interested in the field. As a project of the National Institute of Education, ERIC acquires, abstracts, indexes, stores, retrieves, and disseminates the most significant and current reports and program descriptions. The basic objective of ERIC is to provide the acquired information promptly and inexpensively to a wide variety of users. This system is sponsored

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Most of the documents are available from the ERIC Document Reproduction Service (EDRS) in hardcopy (Xerox copy) or microfiche copy 4"x6" (10.14 x 15.24 centimeter) microfilm card.

Provision for separate space, reader and reader-printer should be considered for this system in the instructional media center.

The following is a list of various types of publication and documents which ERIC presents:

1. Research reports
2. Speeches, conference papers
3. Audiovisual media
4. Guides
5. Maps
6. Monographs
7. Project descriptions
8. Bibliographics
9. Curriculum materials
10. Dissertations and theses
11. Serial publications
12. Statistical data
13. Proceedings
14. Legislation
15. Annual reports
16. Directories
17. Tests and questionnaires
18. Vocabularies
Equipment and materials considerations. In choosing and purchasing the equipment and materials, the director of the center, the team leaders, and the instructors should consult with each other. The process of purchasing involves choosing the most efficient alternative in terms of effectiveness and economy and making the right selections, according to what Elstein (1970) suggested:

1. Durability
2. Access to parts for repair
3. Maintenance requirements
4. Weight, dimensions
5. Convenience of controls
6. Quality of performance
7. Safety
8. Guarantee and availability of service
9. Effects of equipment on the environment (noise, heat, drawing of current)
10. Compatibility with similar devices
11. Availability of materials

Demonstrations, trial use and test reports may all be necessary in selecting equipment. (p. 37)

Recommendation 5: Proposed Time Line

The investigator has attempted to provide a proposed time line of events which put the events in a sequence (see chart 7). The second activity should not be attempted before the first is achieved, or the tenth should not occur before the ninth, and so on.

Time line of events. Before anything can proceed, the institution for teacher education must commit itself to the establishment of
<table>
<thead>
<tr>
<th>EVENTS</th>
<th>At the End of The 1st Year</th>
<th>At the End of The 2nd Year</th>
<th>At the End of The 3rd Year</th>
<th>At the End of The 4th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Event</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Event</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3rd Event</td>
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<td></td>
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<td>4th Event</td>
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<tr>
<td>5th Event</td>
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<tr>
<td>6th Event</td>
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<td>7th Event</td>
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<td>8th Event</td>
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<tr>
<td>9th Event</td>
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<td></td>
</tr>
<tr>
<td>10th Event</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart 7. Diagramatic time line of events.
an instructional media center complex. By the end of the first year of that decision it is necessary to:

1. Establish the instructional media committee.
2. Appoint the instructional media director.
3. Discuss plans for the building or remodeling of an area for the center.

By the end of the second year, it is necessary to:

4. Construct the instructional media center.
5. Requisition for equipment and materials.
6. Outline the program of the instructional media center.
7. Train media personnel.

By the end of the third year, major tasks include:

8. All the departments of the center start functioning.

By the end of the fourth year, it is necessary to:

9. Evaluate the programs of various departments of the center.
10. Restructure the programs at all levels in the light of the evaluation.

Summary

In the preceding pages the writer has tried to identify a problem faced by Iran in its struggle to educate its prospective teachers for self-sufficiency in Iran's ever growing schools.

An available solution to this problem was offered not only to make the country self-sufficient in the number of teachers, but also to be efficient, effective and economical in the production and use of "instructional material" to improve the quality of education.

A detailed plan and program was suggested for a model instructional media center for teacher education in Iran and included the philosophy, functions, organization, administrators and their quali-
figure specifications, a building plan and a suggested time line of events.

Although the above plans were designed specifically for the instructional media centers for teacher education in Iran, they may be adopted with required changes to the needs of any other levels of educational institutions in other countries.
CHAPTER VI

SUMMARY AND CONCLUSION

Introduction

Purpose of the Study

The purpose of this study was to develop a model for organizing the administrative structure and physical facilities for instructional media centers for teacher education in Iran, with a view to provide a smooth flow of operation and efficient media practices, utilization, and distribution of space and equipment.

Sources of Data

Information for this study was derived from a review of the available literature which was related to various aspects of instructional media centers. A number of active instructional media centers located at the leading universities were visited, and necessary information, schematic views, organizational charts, sketches of work areas, and lists of equipment and materials were organized and analyzed to provide a summary of the findings and to formulate the conclusions and recommendations.

Answers to Questions Raised

The following statements are presented in answer to the questions raised at the beginning of this study, and are based upon the information gathered from the review of related literature, recent research related
to instructional media centers in the United States, and interviews of the directors and other personnel of the instructional media centers of the universities visited (see page 59).

**Question 1: What Are the Criteria of an Effective Instructional Media Center?**

Many criteria were mentioned earlier in the study and are summarized here in answer to the question just posed. These criteria were established from the review of the literature and interviewing the media directors of selected universities.

1. The instructional media center is a learning center in the teacher educational institution, at any level, where a full range of materials, audiovisual equipment and services from educational media specialists are accessible to students and teachers.

2. The instructional media center acts as a catalytic agent in the process of change in the field of education.

3. The instructional media center plays a vital role in this entire process and in educating for quality teacher education.

4. The instructional media center provides opportunities in organizing and leadership for making instructional materials available for individual student growth.

5. The instructional media center serves as a clearing-house for various kinds of information related to learning resources and improvement of instruction.

6. The instructional media center actively involves itself in the pre-service and in-service teacher training programs.
Question 2: What Kinds of Facilities Are Necessary to House an Instructional Media Program?

The following lists are a summary of the facilities necessary in an instructional media center.

1. The facilities required for an instructional media center are of course to some degree dependent on the local program, and the potential size of the school system.

2. The instructional media center should be located in relation to the general learning area.

3. There should be made provision for adequate spaces for administrative offices, professional activities and equipment needed. A proper building where all the activities and programs of the center can be performed efficiently.

4. The environment for instructional media center should provide sound control, light control, thermal control, and aesthetic. Also, the concepts of flexibility and adaptability should be kept in mind.

5. Comparative lists for space requirement are introduced in tables 2, 4, and 7.

6. Lists of equipment and materials needed for an instructional media center are recorded in tables 3 and 8.

7. Any selection of equipment must be dependent upon a list of specifications.

Question 3: What Kinds of Budgetary Provisions Must Be Made to Develop a Model Instructional Media Program?

Since the teacher training programs in Iran are operated and funded by the government, there was no need to make any budgetary
provisions. Some authorities have based the cost of the program in the range of $2 to $10 per student. These figures do not include the cost of building or establishing new programs. This amount should be used for the annual expenditure to procure needed equipment and materials.

**Question 4: What Are the Functions of the Media Centers?**

The following functions of the instructional media centers were mentioned earlier in this study and are summarized to answer this question. Some major functions of the media centers are:

1. Plan, organize and administer the media center program.
2. Select, catalog, classify and process hardware and software for the media program.
3. Issue bulletins, revise the instructional materials catalog and obtain information about instructional resources.
4. Maintain a useable collection of print and non-print materials in the center.
5. Schedule delivery of materials and equipment to classrooms upon the request of the instructors.
6. Arrange audiovisual equipment demonstrations.
7. The instructional media center should be actively involved in the pre-service and in-service teacher training programs.
8. The center should be a learning ground for students and teachers who would like to learn production and display techniques.
9. The center should help with, or coordinate the production of instructional materials for teachers.
Question 5: What Types of Organizational Structures Are Found in Media Centers Studied in the United States?

Several instructional media center organizational structures are in use in the United States. The Educational Research Council of America (ERCA) (1968) recommended "centralized, decentralized, and coordinated instructional media centers" (p. 1). These patterns are affected by the type of alternative learning system in which they are operated.

Question 6: What Patterns of Organizational Structures Are Most Valuable for Teacher Education Instructional Media Centers?

No specific pattern for instructional media center for teacher education has been recommended. Based on the information gathered in this study, a centralized pattern instructional media center is suggested by the writer. The centralized organization would suit the institutions for teacher education.

1. The centralized media center allows one administrative unit to be responsible for all the activities.
2. The centralized media center allows close control of instructional materials such that maximum use of the materials without unnecessary duplication can be achieved.
3. The centralized media center provides a wider range or variety of instructional resources and services.

Question 7: What Are the Roles of Various Instructional Media Personnel, Especially the Role Performed by the Director and Associate Directors?

A comprehensive finding about the role of the instructional media specialists has been listed in chapter 5 and summarized here to
answer this question.

1. The philosophy of an instructional media center personnel is one of service to students and teachers.

2. The media center personnel know that they are responsible for implementation of specific duties which need specific knowledge and skills.

3. They should serve as consultants and resource persons for the institution's faculty members and students.

4. They should help faculty and staff to improve the quality of the institution's educational programs.

5. The departmental heads of the instructional media center should manage the operations of their departments. They should develop and implement policies and procedures for their departments. They should interview, select, and evaluate the performance of support staff, and instruct and advise them on methods and procedures.

6. The heads of the departments should plan, conduct demonstrations, and in-service training sessions for faculty on new instructional devices, materials and teaching models.

7. The director of the instructional media center coordinates and administers the entire instructional media system. In addition he:
   (a) plans for future developments
   (b) establishes policies
   (c) designs new quarters
   (d) recruits, selects, interviews and trains new staff members
   (e) plans, organizes and carries out new projects
   (f) serves as an advisor to the institutional media committee
(g) assumes principle responsibility for building strong, relevant collections of media programs closely related to curricular requirements of the institution which he serves.

Question 8: What Job Descriptions and Job Specifications Are Provided for These Personnel?

The job descriptions and job specifications suggested for the major administrative personnel of the instructional media center are similar to those mentioned in answers to previous questions and with the addition of the following.

1. The director of the media center reports directly to the vice-president for academic affairs. He holds faculty rank as a full or an associate professor and should be considered the equal of a dean or at least a department head. The instructional media center director works in close cooperation with the colleges and departments of the institution for more effective use of multi-media in teacher preparation programs.

2. The departmental heads of the instructional media center are responsible for the affairs of their own department. Their directions are received from the director of the instructional media center. They are members of the instructional media committee. They should have a faculty rank and privileges of instructor or assistant professor.

3. Every professional staff member of the media center should have faculty status, and should be subject to all benefits, rights, and provisions for professional development.

4. The other professionals or para-professionals should be specialists in their specific fields; their job description and duties should be
determined by the heads of the departments based upon the specific needs for their particular performances.

Conclusions

In Iran, the institutions for teacher education are being used as bases for the model. School enrollment is on the rise, and now the educational system needs well educated, dedicated and capable teachers in ever increasing numbers. The needs for updating the curriculum to suit the requirements of the country are ever pressing. A crash program for teacher education must provide for preparing fully qualified teachers in the shortest possible time.

The program suffers because of inadequate planning. In Chapters 2 and 4, the effectiveness, the need, and the necessity of the media program have been presented. Therefore, the instructional materials have to be evaluated, adopted and/or adapted to suit and enhance the teacher education program of the country.

The writer has made an attempt to identify and locate the experiences observed and reviewed in the literature in developing a proposed model for instructional media centers as a tool to help some of the teacher educational problems which may be summarized as follows:

1. On the basis of interviews with all the directors of instructional media centers of the universities visited, and on the basis of literature reviewed (see page 22, Brown, 1965; Trow, 1969; The Department of Education, 1971), it was concluded that the philosophy of the proposed instructional media centers for teacher education in Iran should provide variety of services to students and teachers.

2. It was also concluded that the instructional media centers should
be considered mainly as a service facility with the major goal of supporting the diverse needs of the instructional programs, and thereby providing for the needs, abilities, and interests of all concerned within the institution (see pages 18 and 19, Ellsworth and Wagner, 1971, and Maxwell, 1975).

3. Since there was no model for instructional media centers in Iran and since the government and educators alike realized the value of organized instructional programs, it was concluded that the proposed model would provide a framework through which some of the inadequacies of the present system of teacher education may be ameliorated, (see page 2, Mashayekhy, 1975, and page 3, Brown, Lewis and Harcleroad, 1973).

4. From the review of related literature (see page 30, Lewis, 1961, and Erickson, 1968), and because of the centralized system of government in Iran, it was concluded that the instructional media centers should centralize the location of procurement and control of all materials and equipment to their maximum use without unnecessary duplication.

5. Experts in the field of instructional media supported the view that the proper staffing, organizing and managing of the instructional media centers was vital for maximum efficiency; therefore, it was concluded that selection of qualified personnel, development of organizational structure and following proven management techniques would help the institutions for teacher education in Iran to develop an efficient instructional media program (see page 27, Jones, 1963; Lewis, 1961; and page 30, Erickson, 1968).

6. The instructional media director plays a significant role in
development and operation of a program valuable to the instruction. It was therefore recommended that the functions, qualifications, and proper job descriptions of the director of instructional media centers for teacher education programs should be provided for efficient and effective operation (see page 27, Erickson, 1968, and Jones, 1963).

7. Since there were no organized instructional media centers in Iran, and since large sums of money were being spent to purchase equipment and materials, it was recommended that further research be undertaken in means and methods of providing opportunities for training of instructional media directors to organize and manage instructional media centers in schools in Iran at all levels.
March 29, 1978

Dear Sir:

As part of my dissertation, I have proposed a model for organization and management of instructional media centers for institutions for teacher education in Iran.

You have been selected to be a member of the panel of experts which will study and evaluate the proposed model, a copy of which is enclosed.

I recognize that you are a very busy person, but I would appreciate very much your taking a few minutes of your time to look it over and express your opinion concerning it.

The institutions for teacher education of Iran can benefit from your experience and ability. I would, therefore, appreciate your comments concerning the recommendations. For your convenience I have enclosed a return self-addressed envelope.

Wishing you success in your work, I remain

Cordially yours,

Mohammed H. Morovati
Garland Apartments, A-5
Berrien Springs, Michigan 49103

Enclosure: Dissertation
Appendix B

Letters of Comments by the Experts
April 3, 1978

Mr. M.H. Morovati
Berrien Springs, MI 49103

Dear Mr. Morovati:

Thank you for including me in the group to read your dissertation. I have read it and find it to be most interesting.

The task you set yourself, I believe, has been accomplished. Your work was thorough and direct. The plans arising from your research appear to be sound. You know your milieu and have made recommendations which seem to me to be entirely appropriate. I am convinced that what you have done will be useful and fits the educational imperative of your country.

Your dissertation reads quite well and you have handled the language more than satisfactorily.

I wish you well as you now venture out to implement your work.

Sincerely,

Charles M. Woodliff
Director
Division of Instructional Communications

CW:m
M. H. Morovati  
Garland Apts A-5  
Berrien Springs, Mi.  
49103

March 23, 1978

Dear Mr. Morovati:

This letter is to state that I have read your dissertation manuscript over quite carefully. I was happy to do this for you as a friend, as a critic and as a learner. You have been very conscientious in your research for this dissertation. You have sought my counsel on numerous occasions. We have enjoyed much "shop talk" regarding audiovisual education in its various phases. It is apparent that you are well versed in this field. Of course it follows that this topic is well within your field of expertise.

In general I found the reading of your dissertation manuscript to be of great value to me in reviewing various facets of the administration of the educational media center. I have read a considerable number of dissertations within this field from various major universities of America and find it to be quite comparable in extent and depth.

This paper appears to present a very workable approach to the administration of media centers. There are many ideas presented that would be of value to anyone within the field. The applications would be of value, with variations, to most areas of the world no doubt.

Though English is not your native tongue, you have done very well in expressing yourself. I wish I could do as well in a "foreign" language. Without doubt the writing of this dissertation has been extra difficult having to express the thoughts in another tongue. You have done very well in spite of this handicap.

Sincerely,

Richard K Powell  
D. Ed.  
Director of the Teaching Materials Center

RKP:sv
March 22, 1978

Mr. Mohammed H. Morovati
Doctoral Fellow
Garland Apartments
A-5
Berrien Springs MI 49103

Dear Mr. Morovati:

It has been an enriching experience for me to read your dissertation and to thoroughly contemplate the model that you have envisioned for a learning center system. Having had considerable experience during the past sixteen years in creating a number of these centers myself, I can well appreciate the excellent presentation you have made. It is clear, concise, and highly organized. There is no reason, in my opinion, that an entire learning resource system of this type could not be created following your model. It indicates very clearly a well organized chain of command, with excellent philosophical background for such a center.

Thank you for allowing me to study this dissertation and I will be most interested in the fulfillment of the future model.

Cordially,

Arthur J. Batchelder, Ph.D.
Director
The Advanced Learning Center

pj/3/1
April 17, 1978

Mr. M. H. Morovati
Berrien Springs, MI 49103

Dear Mr. Morovati:

This letter is to acknowledge my reading of your dissertation manuscript. In general, I found the manuscript to be well organized, thoughtfully assembled, and clearly written.

The model you propose has been well documented and, in my opinion, can serve as an excellent base upon which to build a media program for teacher education in Iran. However, I feel that your proposed model does not give sufficient attention to a significant challenge issued by the professional organizations, American Library Association, and the Association of Educational Communications and Technology. Your manuscript seems to cast the media center in a primarily reactive role; thus, overlooking the challenge to become more proactive, to serve a catalytic function. It is my belief that it is in this latter role that the media professional and the professional media program can make its greatest contribution.

I thoroughly enjoyed having the opportunity to read your manuscript. My best wishes for success in your efforts to realize fulfillment of your goals.

Sincerely,

Dr. Kenneth E. Dickie
Professor, Department of
Education and Professional Development

KED/cld
Mr. Mohammed H. Morovati
Garland Apartments A-5
Berrien Springs, Michigan 49103

April 14, 1978

Dear Mr. Morovati:

It was a pleasure to talk with you last week about your dissertation.
Subsequently, I have read your thesis with great interest. It will, indeed,
be an excellent guide for the Design Development and use of Instructional
Media Centers for Teacher Education programs in Iran.
You realize, I am sure, that less difficulty will be encountered with the
physical facilities and hardware procurement. The real challenges will be
experienced with the diffusion of innovations with your peers in Iran.
I suggest that you take part in or observe the Instructional Development
Workshop that will be held at Michigan State University on June 12-16, 1978.
It emphasises the design-development and evaluation factors as they relate
to diffusion of motivation.

Sincerely,

James L. Page, Ph.D.
Professor of Education
Director, IMC

enclosures: "IRC Positions", "Duties of the coordinator...", "Purposes...", map.

JLP/dam
Appendix C

Organizational Charts of the Media Centers Visited
Western Michigan University

OFFICE OF VP ACADEMIC AFFAIRS

ASSOC. VP ACADEMIC AFFAIRS

DIVISION OF INSTRUCTIONAL COMMUNICATIONS

DIRECTOR (Woodliff)

AUDIO SERVICES (Segal)

- AURAL PRESS
- MULTIPLE AUDIO DISTRIBUTION

TV SERVICES (Spink)

- SCHEDULING & TRAFFIC

PRODUCTION SERVICES (Provancher)

- MOTION PICTURE PRODUCTION
- STILL PHOTO & DUPLICATION
- GRAPHICS, SCENERY, ANIMATION

AV CENTER (Robinson)

- FILM LIBRARY & BOOKING
- EQUIPMENT
- STUDENT & PART-TIME HELP

WNUK (Macleod)

ASSOC. DIRECTOR TECHNICAL SERVICES (Bishop)

- ENGINEERING
- REMOTE SERVICES & AV REPAIR

OFFICE OF INSTRUCTIONAL DEVELOPMENT (Poole)

- WIDR-FM

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ORGANIZATIONAL CHART
Indiana University (Bloomington)
Audio-Visual Center
Andrews University Chain of Command for the Audio-Visual Center.
Appendix D

Floor Plans of

the Media Centers Visited
The Division of Instructional Communications (DIC) occupies the first and lower floors of Dunbar Hall. About half of the Division's service areas have been incorporated into this facility. The first floor includes two office complexes, photographic services areas, and a storage area.
The lower floor includes...

1) all television production areas including scenery shop, studios A and B, master control room and engineering areas;
2) motion picture services, recording studio, editing room, office and equipment storage areas;
3) graphic services.
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Dissertations


VITA

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Date of birth: October 1, 1927

Education:
- Middle East College, Extension Division, Beirut, Lebanon, 1951, High School
- Tehran University, Tehran, Iran, 1961, Bachelor of Arts (English Literature)
- Andrews University, Berrien Springs, Michigan, 1966, Master of Education (Educational Administration)
- Andrews University, Berrien Springs, Michigan, 1978, Doctor of Education (Educational Administration)

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- Educational Technology

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- 1956-1958 Teacher, Adventist Academy, Tehran, Iran
- 1968-1970 Principal, Business Manager, Adventist Academy, Tehran, Iran
- 1967-1970 Educational Secretary, Iran Mission, Tehran, Iran
- 1970-1971 Teacher, Sacramento Union Academy, Sacramento, California
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