A COMPARATIVE STUDY OF UNIVERSITY-LEVEL MEDIA CENTERS IN JORDAN AND IN THE UNITED STATES

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THE RESEARCH PROBLEM

Introduction

Mankind has entered the electronic age. No one can deny the fundamental role technology plays in every aspect of our lives including education. As Chisholm (1975) stated, "The use of media and technology in all aspects of our lives is an acknowledged and accepted fact" (p. 3).

The advent of new educational technology during the last decades has shaken the roots of traditional methods of instruction. As a result, many educators have realized what great services technology can render to the educational process. That is why most educators emphasize that in order for instructional technology to be of great use, it should be dealt with as an integral part of instruction. Brown, Norberg, and Srygley (1972) emphasized this view by saying:

> The modern educational media program does not reside in a media center serving merely as a repository of materials and equipment. Neither does it serve simply as the focal point for the management of media information and services. It is, and does, far more; it is an integral part of the comtemporary instructional program (p. 401).

They went on to say, "The media center itself should function exclusively as the base for instructional systems research and development" (p. 401).

The growth of educational television, electronic learning, facilities, language laboratories, and other devices promoted the

development of media services at college and university level, as well as at other educational levels. Year after year universities and colleges in the United States allocate more time and money to audio visual services. Hyer (1974) described the audio visual services in 1970 in the United States as follows:

> Colleges and universities have their own, often quite extensive audio visual centers which offer service to campus departments such as: material and equipment supply and servicing, production, consultation, research and programs for training of teachers, media specialists and film, radio and television production specialists. Universities spend about forty two million dollars a year on motion pictures but are not great users of filmstrips. Hope states that the audio visual expenditures of colleges and universities in 1970 were around two hundred million dollars, an increase of 9% over the previous year (p. 34).

Hyer continued by saying:

> The audio visual centers also provide laboratories in which the graduate students work for inter-type experience while they are studying to become media specialists. Other colleges and universities combine graduate student training in radio, television and film production with their production activities (p. 35).

The American Association of State Colleges and Universities (AASCU) and the National Association of State Universities and Land Grant Colleges (NASULGC) conducted a national survey of existing technology available to the faculties in over four hundred member colleges and universities in the late '70's. The survey covered three major areas:

1. Availability
2. Description of present communications technology
3. Plans for expansion.

The study indicated that member institutions showed a strong commitment to the use of communications technology in their programs. Beal (1981) described some of the findings of the study by saying;

> The survey covered also the provision for faculty utilization of telecommunication facilities for instructional purposes. In excess of ninety percent of the member institutions stated services were available to faculty and staff and over eighty percent reported the availability of telecommunications facilities to the adult public (p. 120).

In reality instruction is becoming more and more mediated. Chandler (1976) stated:

> Mediated instruction in the classroom has become a reality at most institutions of higher education. Some institutions have extended the availability of nonprint instructional media and mediaware to both faculty and students (p. 258).

No doubt, faculty acceptance of media and utilization of mediated instruction promotes expansion of media services. Both faculty and students should have access to the available educational media. Accessibility is the key to increasing use of educational media. Chandler (1976) emphasized this view by stating, "This availability should be similar to the general availability and circulation practices for print materials common to university and college libraries" (p. 286). Then he added:

> A successful media program in terms of high purposeful media utilization is related not only to the availability of materials to both faculty and students, but also to the selection of the best content and format for the intended instructional purpose. It may be assumed that to provide even minimal service to the faculty, some consulting on media utilization must occur between media center staff and faculty. Equally important is the type and level of assistance available to students in finding and using non print media (p. 286).

Traditional fears on the part of teachers, instructors and professors that the machine would replace the teacher are not valid. Graf (1976) stated:

> Even now, in 1976, many colleges and universities have laid aside the early fears that the machine would replace the teacher. There is a movement toward a dependency upon technology to assist in the learning process. University professors have found that even where new electronic media are used extensively, there has been no loss of jobs (pp. 1-2).

The Carnegie Commission on Higher Education (1972) predicted that by the year 2000, "all instructional technology identifiable in 1972 will be in general use on college and university campuses" (p. 46).

The wide spread of computers in colleges and universities and their implementation in education and the increasing growth of media services on campuses emphasize that Carnegie's recommendations were in the right place and the right time. The first recommendation by the Carnegie Commission on Higher Education (1972) read as follows:

> Because expanding technology will extend higher learning to large numbers of people who have been unable to take advantage of it in the past, because it will provide instruction in forms that will be more effective than conventional instruction for some learners in some subjects, because it will be more effective for all learners and many teachers under many circumstances, and because it will significantly reduce costs of higher education in the long run, its early advancement should be encouraged by the adequate commitment of colleges and universities to its utilization and development and by adequate support from governmental and other agencies concerned with the advancement of higher learning (p. 42).

To remain cognizant of the development of the services rendered by a media center, the director and staff in particular need to carry out regular evaluations of such services to help determine future program direction. Simonds (1979) stated:

> One of the more impressing concerns facing media services people is the need to be aware of the quality of services they are providing. It is not too difficult to determine the quantity of services. One simply counts the reservations and deliveries

> of equipment, films and productions in a given period of time. But quality has to do with the support provided for media services by faculty and administration when budgets are tight (p. 49).

Evaluation is essential for improvement and development. Many checklists have been developed by educators to carry out evaluation of media center services programs. Some of these are self-evaluating checklists similar to the ones used in this study.

Developing countries, including Jordan, patterned after the advanced countries in establishing audiovisual centers in institutions of higher education. In fact, many factors justified the establishment of audio visual centers in Jordanian universities and colleges such as: a) studies and research findings in the United States and the other advanced countries which emphasize the efficiency of media in the teaching-learning process, b) shortage of teachers in Jordan, c) the increasing number of students, and d) the growing increase of educational costs.

One of the goals of establishing the Audiovisual Center at Yarmuk University in Jordan in 1978 according to Yarmuk Newsletter (September, 1983) is:

> Using the various types of educational technology efficiently and purposefully to improve the teaching/ learning process and solve its problems, and to produce educational material (p. 3).

The University of Jordan also established its Educational Technology Center early in 1984 to render media services to faculty, staff, students and public at large. According to the Educational Technology Center Handbook (1984), it is stated:

> As the University of Jordan plays a leading role in the development of educational methods in its various colleges and in order to support other educational institutions,

> it has established the Educational Technology Center in the beginning of 1984 (p. 1).

(For more information about media center services program in higher education in Jordan and the United States, the reader is requested to refer to Chapter II of this study.)

Statement of the Problem

The problem was to evaluate and determine the status of the media services programs of the Educational Technology Center at the University of Jordan and the Educational Research and Development Center at the Yarmuk University in Jordan as a developing country compared to the media services program at the Oklahoma State University Audiovisual Center in the United States as an advanced country. The study is an attempt to answer the following questions:

1. What are the strong, neither strong nor weak and weak service items of each media program as perceived by its media staff members?

2. What are the preferences of each media center staff involved in the study for media program service items?

3. What differences exist among the three centers in terms of location of the three centers, the number of faculty, staff and students served by each center, and dissemination of information about educational media?

4. What differences exist among the three centers regarding charging for services, accessibility to media, checking out materials and equipment, responsibilities and qualifications of the directors, budgets, number of satellite centers, availability of educational equipment and instructional materials and use of computers?

5. What is the extent of coordination or cooperation between the media centers of the Jordanian universities involved? What is the

extent of coordination between any of these media centers and any center inside or outside the country.

6. What is the level of coordination or cooperation between Oklahoma State University Audio-Visual Center and any other media center inside or outside the United States?

7. What educational technology conferences does each center regularly attend?

8. What periodicals is each center subscribing to?

9. What problems impede offering media services of each center?

Assumptions

The researcher made the following assumptions:

1. Media professionals and media staff surveyed in this study were objective in their evaluation of their media center services program.

2. The "Evaluative Checklist": Used in this study is a valid and reliable measure for evaluating media programs in colleges/universities.

3. Each media center offered a variety of media services to students and faculty.

4. Each center had its own policy and stated objectives and growth plans to expand its services and increase its available equipment and instructional materials.

5. The media centers surveyed were not intended or founded to be commercial organizations.

Definition of Terms

The definitions of the following terms applied to this study.

Audio-Visual Instruction: A sub-field of instructional technology

concerned with the production and utilization of those materials and related devices in instruction including motion pictures, television, sound and silent filmstrips, slide sets, recordings, transparencies, projected opaque pictures, and a variety of graphic arts which involve learning through sight and/or hearing.

Media Center, Audio-Visual Center, Educational Technology Center: In this study, these terms refer to a center where instructional equipment, materials and other resources are provided to the faculty, students and to the off-campus community. These services include the availability and use of audio-visual hardware and software, production services, in-service training, design services, information, consultation, the use of resource facilities and the availability of a professional staff to augment and manage these services (AECT, 1977).

Learning Resource Center, Educational Media Resources Center, and Instructional Resources Center: In this study, these terms refer to centers that have the functions of identifying, acquiring, storing, retrieving, and making available information in a variety of formats. This definition will also include curriculum resource centers, media resource centers or any other center in higher education where resources are collected, stored and are available for use by students, faculty or both. In a word, resource centers include both print/non-print resources.

Instructional System: A combination of instructional system components and a specified management pattern which is pre-structured in design, or selection and in utilization to bring about purpose and controlled learning, and which: a) is designed to achieve specified competencies or terminal behaviors for a total course of instruction, b) includes the instructional methodology, format, and sequence called

for in the design, c) manages the contingencies of behavior, d) includes a complete set of management procedures for using the system, e) is replicable, f) has been developed through the complete instructional development process, and g) has been empirically validated (Association for Educational and Communications Technology (AECT), 1977).

Educational Technology: This term refers to a complex, integrated process involving people, procedures, ideas, devices and organization for analyzing problems and implementing, evaluating or managing solutions to those problems to bring about more effective instruction.

Self-Evaluation: Evaluation of the media services program and of the media center staff carried out by the media center staff members themselves including the director, in terms of certain criteria or the mission of the center (AECT, 1977).

Limitations of the Study

The study was limited by the following factors:

1. The study was limited to one American university media center, Oklahoma State University Audio-Visual Center, although there are about three thousand colleges and universities in the United States of America. It was also limited to two media centers at Jordanian universities, although there are more than 50 colleges and universities in Jordan.

2. The population of the study was limited to media center staffs. Faculty, students and other users who usually benefited from media services were not involved in the study.

3. It was limited to questionnaires, investigations, and interviews concerning the period beginning with the Summer of 1984 and ending with the Spring of 1985 academic year.

4. The self-evaluation instrument was limited to an evaluation of six major categories concerning a quality of instructional media center program.

Organization of the Study

Chapter I is a general description of the study. It includes an introduction to the study, a statement of the problem, several assumptions of the study, definitions of terms having special connotation for the study, an identification of the limitations, and organization of the study.

A review of the related literature will be found in Chapter II. The methodology utilized in the study is described in Chapter III. Results and an analysis of the data will be presented in Chapter IV. A summary of the study, discussion of the conclusions drawn, and recommendations are offered in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The review of the literature was divided into six areas:

1. Some observations of American history of media in education

2. Historical background of media centers in American universities and colleges

3. A review of the Jordanian history of media in education

4. A review of media center services in advanced and developing countries

5. Integration of media centers and libraries in higher education

6. Related research studies

In order to accomplish this task, the following procedures were taken:

1. A computer and manual search of Educational Resources Information Center (ERIC) documents for the period 1974 to the present was made using appropriate descriptors producing more than four hundred documents. The related documents were selected for this study.

2. A computer and manual search of Current Index to Journals for the period 1974 to the present was made.

3. Manual search of Dissertation Abstracts Index to American

Doctoral Dissertations for the period 1960 to the present was made.

4. The card catalog of Edmon Lowe Library at the Oklahoma State University was searched and five dissertations and four reports were obtained through the inter-library loan system of the Oklahoma State University Library.

5. Publications, pamphlets, catalogs, and guidebooks issued by the University of Jordan, Yarmuk University, and the Ministry of Education, all in Jordan, and Oklahoma State University in the United States were also searched.

Some Observations of American History of Media in Education

The history of the development of educational technology can be divided into four periods:

1. Colonial Period 1607-1761

During this period, almost all school supplies were handmade. The pens were goose quills and each family had to supply its children with homemade ink. The school usually consisted of one room supplied with no materials such as blackboards or maps. The instructional materials were primitive. Schools were poorly furnished.

Late in this period the instructional method of Pestalozzi was introduced into the United States. The underlying principle of the method was formulated in his own statement, "I wish to psychologize instruction." By this he meant to harmonize instruction with the laws of development. As a result of the influence of Pestalozzianism pupils learned by the use of objects, inquiry, investigation and through oral discussion. School

museums started during this period. The two oldest museums in America were founded in South Carolina (1773) and Masschusetts (Seattler, 1968).

2. American Revolution to the Civil War 1791-1861

The steel pen appeared in the progressive schools, maps were extensively used and new textbooks came into being. Wynn (1972) stated:

> Webster's blueback speller, the Elementary Spelling Book, gave rise to a whole hoard of imitations. The first texts to rival it seriously were the famous McGuffy Readers. While Webster and McGuffey dominated the textbook movement, several other books made new technological contributions (p. 392).

School furniture and architecture improved. The earliest blackboard appeared 1809. By the 1840's, blackboards spread and became common in schools. Globes were introduced into schools.

Pestalozzi's methodology was developed and introduced by a Swiss educator, Fellenberg (1771-1844). His method stressed using objects in instruction. Seattler (1968) stated: "Fellenberg's ideas swept the country between the years of 1825-1835" (p. 35). Edward A. Sheldon (1823-1897), superintendent of schools in Oswego, New York obtained approval for object teaching method by using pictures, color charts, models and other objects in teaching. Many educators encouraged teachers to use objects in their teaching during this time. According to Seattler (1968) L.H. Bailey of Cornell University insisted that "education should always begin with objects and phenomena instead of books and museums" (p. 38).

Frobel, a German educator (1782-1852) developed an instructional method made up of three aspects: 1) games and songs; 2) construction; and 3) gifts and occupations. His method spread throughout the United States.

The Lancasterian method of teaching was introduced in New York for the first time in 1806-1853. This method required one teacher to teach a group of fifty head pupils or monitors, who in turn each drilled ten

students. Thus one teacher was able to take charge of 500 or more students at one time.

Seattler (1968) stated:

> In all fairness to the Lancasterian school, however, they deserve to be called forerunners of modern instructional technology because they were the first to introduce order and system in instructional methods in American schools (p. 30).

Museums also contributed much to educational technology. This period also witnessed the establishment of college museums of natural history. Of major importance in the museum movement was the development of new methods of instruction. Specimens and object collections were made an integral part of the instructional process (Seattler, 1968).

3. Civil War to 1900

Significant changes took place. A new attitude towards educational tools was adopted by decision-makers in education Educational equipment was purchased to facilitate learning. The states began publishing journals to keep teachers knowlegeable about new educational technology and teaching methods. The pencil industry was started by Eberhard in New York in 1861. New educational productions came into being. The magic lantern which projected pictures on a screen was introduced as a visual aid. The stereoscope was also introduced. School buildings and furniture improved. New educational theories were put forward by Thorndike, Dewey and others in education. Thorndike's main concern was the science of human learning and a technology of instruction. He formulated laws of learning which provided basic principles leading to a technology of instruction. Seattler (1968) stated that Thorndike "anticipated programmed instruction". Seattler (1968) further described Thorndike's influence:

> Thorndike's impressive demonstration of what could be accomplished by empirical-inductive means in the development of a science and technology of instruction unquestionably marked him as the first modern instructional technologist (p. 52).

However, beginning in the 1880's, there arose interest in individualizing instruction, with the introduction of the laboratory method. Study prints, self-checking devices and diagnositc tests were utilized. Around 1880 slides were introduced into American institutions and the roll film system was presented by Eastman in 1884 (Seattler, 1968).

4. The 20th-Century Period

The present century witnessed more changes and progress in educational technology than all the past centuries. "Audio" was added to "visual."

Sound was added to silent motion pictures and filmstrips. Recorders and disks appeared. Television entered the classroom. A nationwide network of television channels has made television accessible to most schools and colleges in the United States. Microcomputers were also introduced into schools and colleges. Libraries also accommodated media equipment. In 1969 the U.S. Office of Education, a new office for instructional resources with the responsibility for a new Bureau of Library and Educational Technology, was founded. In 1970 the first volume of the report of the commission on instructional technology was published (Wynn, 1972).

The biggest boom in the schoolbook industry was the rise of the paperback. Wynn (1972) stated: "More than thirty thousand books or new

editions of old books are printed (daily) in the United States, many of which are textbooks" (p. 394). This century also witnessed the birth of programmed instruction. Skinner is considered to be the father of programmed instruction.

During this period, interest in individualized instruction was emphasized to meet individual differences and to teach specific objectives according to each individual's ability (Wynn, 1972).

Instruction by television was introduced into the American colleges and universities. Credit television courses were offered to on-campus and off-campus students. By the end of the seventies there were over fifty telecourses produced by individual colleges, public television stations, or college consortia. According to Brock (1981), who gathered significant information from a study conducted in 1979 in which three thousand American colleges and universities were surveyed: "There were almost half a million students enrolled in college credit courses in 1978-1979." He further added: "Obviously that number is very small compared to the number of students enrolled in colleges and universities in 1978-1979" (pp. 55-56).

In an article Dirr (1981) stated:

> Seventy percent of all institutions of higher education make use of television. Ten percent use it for non-instructional purposes such as promotion, recruitment or staff development, 61 percent use it for instruction including 25 percent which offer courses over television (p. 103).

As for the use of educational radio in higher education Dirr (1981) obtained the following information from a study conducted in 1980 on a sample of 120 American institutions:

> Fifty-three percent of all institutions in higher education used radio/audio for instructional purposes in 1979. Those colleges and universities offered a total of almost 10,000 courses involving substantial use of radio/audio and enrolled

> half a million students in those courses which used radio/ audio for instruction had on-campus production facilities to produce original programming for instruction" (p. 105).

Historical Background of Media Centers in American Universities and Colleges

Learning centers did not suddenly appear on the educational scene, and they were not a mere fad. The emergence of learning centers has resulted from a wide variety of trends, developments, research in education, psychology and sociology (Bennie, 1977).

Brown (1972) stated:

> The dramatic changes that produced the great college and university libraries and media centers of today required the better part of a hundred years -- even longer, if one looks back to the beginning of higher education in the United States (p. 101).

According to Bennie (1977):

> Today learning centers continue to be developed across the country despite the economic crisis confronting public education. An important reason for this phenomenon surely rests on the fact that, in the final analysis, learning centers are an economical and efficient way of facilitating individualization of instruction (pp. 16-17).

Organized non-print "visual education" first appeared in American college and universities as an adjunct to extension divisions that were formed in the 1900s. Among the function of these divisions was the distribution of still pictures and lantern slides. The Bureau of Visual Instruction was established by the extension department of Texas in 1910. Five more bureaus of visual instruction were also established by 1914 in five other universities in the United States. This number increased to thirty-six in 1948 (Brown, 1972).

Media services expanded to include on-campus activities due to the establishment of certain college and university audio-visual centers in

the 1930's and 1940's. Such media programs prospered at that time mainly for two reasons: 1) more equipment and instructional materials became available, and 2) more acceptance and recognition of audio-visual techniques were observed on-campus (Brown, 1972).

The advent and growth of educational television, electronic learning facilities, language laboratories, teaching machines and other media contributed to the development of media services. Those media services either became separate audio-visual organizations, called media centers or parts of integrated and comprehensive educational media programs known by other names (Brown, 1972).

According to Brown (1972):

> Patterns of administrative organization for these programs reflect a variety of functions. The extent of this variety is suggested by the following list of names found to be given in comprehensive educational media programs currently operating in colleges and universities around the country.
>
> Library (including other than printed materials)
> Audiovisual Center
> Instructional Materials Center
> Instructional Resources Center
> Instructional Services Center
> Instructional Technology Center (pp. 101-102).

Still other names are also given to media programs such as: Educational Technology Center (University of Jordan), Educational Media Resources Center (University of California), Educational Research and Development Center (Yarmuk University), Instructional Systems Development Center (Florida State University), and Learning Systems Center (University of Southern California).

Still other related units in higher education are frequently organized as discrete media services such as educational television stations, instructional television centers, film production units,

language laboratories, electronic learning centers, self-instruction laboratories, etc.

In defining the role of the learning center, the American Library Association (ALA) and the American Association of Educational Communications and Technology (AECT) compiled the following guidelines as stated by Terry and Hotes (1978):

1) To provide leadership and assistance in the development of instructional systems which employ effective and efficient means of accomplishing those objectives;
2) To provide an organized and readily accessible collection of materials and supportive equipment needed to meet institutional, instructional, and individual needs of students and faculty;
3) To provide a staff qualified, concerned and involved in serving the needs of students, faculty, and community;
4) To encourage innovation, learning, and community service by providing facilities and resources which will make them possible (p. 108).

Learning Resources Centers offer a variety of media services to students, faculty members and the community at large, including cataloging, maintenance, production, distribution, consultation, developing instructional systems and innovations in curricula and techniques of instruction.

They may also offer assistance in planning and designing buildings and instructional media.

Brown (1972) stated:

> Ordinarily, not all the above services are provided in any single educational media program. In most cases in higher education, the conventional library and the audio-visual program are administered as discrete entities, although there now appears to be more interest than formerly integrating these two agencies as a single service (p. 103).

Erikson (1968) listed six principles for organizing media service programs: 1) Media program services will be more efficient under a centralized leadership. 2) The media program should make instructional

materials and equipment accessible; 3) Available; 4) Of great variety; 5) Providing in-service growth for all teachers; and 6) Be based on continuous long-term planning.

Systematic evaluation of media programs is essential for their progress because of the tendency, as Erikson (1968) stated "to lose sight of important long-range goals in the pressure of day-to-day programs" (p. 599). Benjamin Bloom discussed two roles of evaluation - formative and summative. Formative evaluation pertains to the process of developing a program, while summation evaluation focuses on the completed program. Formative evaluation is the use of systematic evaluation in the process of carrying out the program for the purpose of improving the program. The director and his staff should carry out this sort of evaluation regularly for the media program services. Fulton, King, Teague and Tipling (1979) stated: "An effective educational media program must be evaluated on a regular basis" (p. 1). Part of the evaluation could be by comparing their media program services to other media programs offering similar services to alleviate weakness and to stimulate the media staff to be more efficient.

In order to carry out a fruitful evaluation of the media program services, the director and the staff should adopt a certain criteria or a checklist against which they compare their achievement and services.

A Review of the Jordanian History of Media in Education

There were only twenty-five schools staffed with fifty-nine teachers when the Jordanian Emirate of East Bank was established in 1922. The total population was 225,380 (less than quarter of a million) people in

1922. After the state of Israel had been established in Palestine in 1948, the majority of Arab Palestinians were forced from their homeland to Jordan. The remaining part of the West Bank of Jordan was annexed to the East Bank in 1950 and formed the Hashemite Kingdom of Jordan. In 1967 Israel occupied the West Bank of Jordan. These political developments had a great effect on the density of population, education, the number of schools, teachers, and students as well as other aspects of life.

Table I shows the great qualitative educational development that has been achieved by this young developing country.

Although Jordan is a country with poor natural resources, it allocates a good percentage of its national budget to the Ministry of Education. The private sector schools and the United Nations Relief and Works Agency (UNRWA) schools are not financed by the national budget; this should be taken into account (Ministry of Education, 1984).

The Ministry of Education is responsible for designing the policy, drawing plans and evaluating the educational process in Jordan. It also develops educational programs and supervises the educational system.

Table II shows the total budget of education through the years of 1950/51 - 1983/84 and its percentage to the national budget.

The Ministry of Education with the cooperation of Radio Amman started transmitting educational radio programs as direct teaching for elementary, preparatory and secondary schools in 1968.

The Ministry with the cooperation of Jordan Television also started transmitting Educational Television programs to secondary and preparatory schools in 1968. Programs covered areas of religion, languages (Arabic and English), science, math, and social studies.

TABLE I

NUMBERS OF SCHOOLS, TEACHERS, AND STUDENTS

Scholastic Year	1922/23	1932/33	1943/42	1946/47	1950/51	1960/61	1966/67	1967/68	1970/71	1976/77	1980/81	1983/84
Schools	44	60	74	67	141	1616	2057	1220	2529	2430	2750	2937
Teachers	81	134	186	214	476	9436	13312	8091	11853	21128	28641	31904
Students	3316	5249	9852	10729	24556	283923	446144	289793	387886	611834	762425	824901

Source: Ministry of Education, 1984; Tel, 1978.

TABLE II

TOTAL BUDGET OF EDUCATION, PERCENTAGE OF NATIONAL BUDGET

Scholastic Year	1950/51	1960/61	1966/67	1967/68	1976/77	1981/82	1983/84
Total Budget of Education in JD	80,938	2,857,000	3,581,085	5,567,195	18,610,500	61,563,000	63,950,000
Percentage of National Budget	3.9%	7.7%	6.8%	8.1%	7.1%	8.0%	8.2%

Source: Ministry of Education, 1984; Tel, 1978.

The Ministry supplied some schools with T.V. sets, video tape recorders and supplied all schools with radio sets and tape-recorders. In 1964 the Ministry of Education established the Audio-Visual Unit which was responsible for equipping schools and state community colleges with educational equipment, instructional materials and providing maintenance for such equipment (Tel, 1978).

In 1981 there was established a Directorate for Educational Technology to introduce modern technologies into the educational process and to manage and develop the educational television and radio broadcasting programs. This directorate did some research in the field of educational television. It also conducted some courses in educational technology for teachers, provided a lot of services through its several units as: film library, maintenance workshop, printing unit, art unit, and supply unit. It also produced models, charts, illustrations for textbooks, educational pamphlets, captions for various purposes. In an article, El-Araby (1978) stated:

> On the positive side, some national AV centers have successfully produced educational media according to international standards. For example, Jordan boasts one of the best educational television programs that has won international prizes (p. 312).

The Educational Technology Directorate expanded its services by establishing the Video Center to produce special teacher training programs (Ministry of Education, 1981).

Before 1961 audio-visual equipment and materials were rarely used. Table III shows the growth of audio-visual equipment and media staff in the Ministry of Education between the years 1961 to 1979.

TABLE III

AVAILABLE EDUCATIONAL EQUIPMENT AND INSTRUCTIONAL MATERIALS OWNED BY THE AUDIO-VISUAL UNIT /MINISTRY OF EDUCATION BETWEEN 1961-1979

Scholastic Year	1961	1965	1970	1976	1979
Staff	1	20	40		
16 mm Projector	7	40	90	140	210
Slide Projector	20	144	451	500	528
Screen	7	39	250		
Overhead Projector	----	15	30	60	74
Tape-recorder	12	78	198		
Camera	1	22	42		
Opaque Projector	2	16	43	62	70
Broadcasting Units	----	----	72		
16mm Motion Film	27	168	589	700	1510
Filmstrips	80	850	1618	1720	1860
Slide Sets	5	55	224	360	380
Radio	----	----	----	1350	3250
T.V. Set	----	----	----	251	360
Language Lab Unit	----	----	----	7	7
CCTV	----	----	----	2	7
Educational Radio Station	----	----	----	1	1
Transparencies Sets	----	----	----	----	50

Source: Tel, 1978; Ministry of Education, 1981.

According to a pamphlet published by the Educational Technology Department in 1981, every school was supplied with a tape recorder and a radio. There were 3250 tape recorders in schools, and there were five hundred television sets at schools. The pamphlet also pointed out the major activities of the Educational Broadcasting Service and the Educational Television Unit in the scholastic years 1983-1984.

TABLE IV

THE MAJOR ACTIVITIES AND PRODUCTION OF THE EDUCATIONAL TELEVISION AND RADIO UNITS IN THE EDUCATIONAL TECHNOLOGY DEPARTMENT DURING THE SCHOLASTIC YEAR 1981/82

	Educational T.V.	Educational Radio
Total Production	900 programs	700 programs
Production Per Month	8 programs	20 programs
Duplication Service	----------	40,000 audio tapes
Transmissions Per Day	8 programs	6 programs

Source: Ministry of Education, 1981.

The Educational Technology Department also established local educational technology centers at Directorates of Education in the thirteen Local Districts of Jordan.

Universities and colleges in Jordan also contributed to establishing media centers in Jordan. One of the main reasons for establishing media centers in Jordan is to improve instruction and solve some of the educational problems such as "the increasing number of students and the lack of qualified teachers" as was pointed out by many Jordanian educators.

Jordanian statesmen and educators are devoting a lot of effort to improve the quality of instruction because Jordan exports thousands of university graduates and technicians to the neighboring Arab countries. Ayesh (1984) stated:

> This unpleasant state of educational quality led the Minister of Education in Jordan, a leading country in education in quantity and quality and whose main export is manpower, to declare that the 1980 decade will be dedicated to quality (p. 43).

According to statistics of 1983 there were more than 50,000 students in the Jordanian colleges and universities taking into account that the

population of Jordan was at the time 3½ million people. Most educators emphasize that the time has come for concentrating on the quality of instruction which means that instructional technology is going to play an essential role.

The College of Education at the University of Jordan established its Instructional Media Center in 1975. The center includes a film library and educational media accessible to both students and faculty.

In 1984 the University of Jordan established the Educational Technology Center. Under article (4) of the Instructions of the Educational Center the following was stated:

> The Center takes part in developing the process of learning and teaching at the University by following modern methods for planning, developing and arranging programs as well as using modern educational equipment (p. 5).

Yarmuk University also established an audio visual center in 1978. In 1981 this Center was annexed to the Educational Research and Development Center.

The Education Department at the College of Arts at Yarmuk University also established its media center in 1980. Educational materials and equipment are accessible only to the department faculty and to the educational technology program students.

Cooperation with International Media Centers

The Ministry of Education in Jordan believes in cooperation and coordination with the Arab, Islamic and friendly countries. As it was stated in a report published by the Ministry of Education entitled Progress of Education in the Hashemite Kingdom of Jordan 1981-1983:

> The Ministry of Education seeks to promote cultural and economic cooperation with the industrial nations and international organization, to teach foreign languages, to

> exchange experiences and information in the field of education, culture and science, to adapt technology to our society by integrating it into the elementary curriculum, to exchange experiences involving implementation of educational innovation in the elementary cycle (p. 23).

This same commitment applies to the Educational Technology Center policy at the University of Jordan. Under article 4 of the Instructions of the Educational Technology Center it was stated: "cooperation with local and regional as well as international institutions" (p. 5).

Arab educators and statesmen were concerned about their countries which suffered badly from shortage of media specialists and educational materials and equipment. To meet such educational needs, the Arab League Educational, Cultural and Scientific Organization (ALECSO) was established as a special agency of the League of Arab States in 1970. Jordan is a member of ALECSO. In 1975 ALECSO decided to establish the "Arab States Educational Technology Center."

The purpose of this regional center is to encourage establishing more media centers in the member states, to upgrade and train media professionals, to conduct research in the use of media and to provide consulting services to any member state.

In 1979 the Arab Center conducted four seminars in the following:

a) Administration of educational media in colleges universities in the Arab World,

b) Teacher training in the field of educational media

c) Administering educational radio programs in the Arab countries The Arab Center issues the quarterly newsletter Educational Media.

In the field of international cooperation, West Germany supplied equipment to the Educational Research and Development Center. Japan has also undertaken to equip partially the Educational Technology Center at

the University of Jordan.

UNRWA/UNESCO Department of Education also provides education and training through the UNRWA education systems for children of Palestine Arab refugee camps in Jordan. Among UNRWA publications for teacher training are those on self-study work assignments, audio-visual media, CCTV media and instructional materials such as charts, slides, filmstrips, audio recordings, overhead transparencies and video programs.

Uses of educational media are not restricted to developing countries. Developed countries have made great progress in this field by making use of media and they are well on their way to implementing media as a fundamental part of the educational process.

Table V, adapted from Farkouh (1980) shows uses of educational media by some developing and developed countries.

TABLE V

USES OF EDUCATIONAL MEDIA

Uses / Media	Upgrading Instruction	Teaching Teachers	Extending the School	Literacy and Fundamental Education	Adult Education and Community Development
Tele-vision	USA Niger Nigeria Samoa El Salvador	Algeria USA Italy Nigeria Samoa	USA Italy Japan Peru	Italy Ivory Coast Peru	USA Italy Peru USSR
Radio	Niger Thailand	Thailand Sweden	Australia New Zealand	Honduras Niger	Togo India Niger
Corre-spondence Study		Algeria UNRWA	Austrailia New Zealand		
Audio-Visual Aids		Algeria		Ivory Coast	

A study conducted by the writer in Spring, 1984, about the efficiency and impact of the educational television teacher on the classroom teacher who uses television regularly in his teaching indicated that the classroom teacher learned from the television teacher. It also indicated that the television teacher helped the classroom teacher in controlling the students, demonstrating ambiguous concepts and terms and encouraged him to increase the use of media in his teaching (Almefleh, 1984).

A Review of Media Center Services in Advanced and Developing Countries

The purpose of this study was to compare university media centers in Jordan as a developing country and the Oklahoma State University Audio Visual Center in the United States of America as an advanced country.

It is worth mentioning that literature on comparative studies of university media center services between Jordan and the United States is nonexistent. Though computer and manual search of Education Resources Information Center (ERIC), and current Index of Journals in Education, and a manual search of Dissertation Abstracts Index to American Doctoral Dissertations were done, the research found only a series of four books published by the United Nations Educational, Scientific and Cultural Organization (UNESCO) under the title "Comparative Studies on the Administration of Audiovisual Services in Advanced and Developing Countries." Reference to this study is made later in this chapter. The UNESCO comparative study was not a qualitative evaluation; it was just a quantitative evaluation of the audio visual services in the countries involved.

International cooperation in the field of educational media is growing. However, recently some international media centers have been established to promote cooperation in the field of educational media among nations. The International Council for Educational Media (ICEM) was founded in 1950 to encourage cooperation and to exchange expertise in educational media. Activities of the ICEM are limited to the school level. The ICEM includes thirty-one developing and advanced countries including the United States. Jordan is not a member of this council. According to Howe (1980), the objectives of the ICEM are:

> a.) to promote worldwide contacts among people professionally responsible for promoting production, distribution, research and the use of modern media in the member countries; b.) to provide an international channel for exchange of views and experience in the field of educational technology; c.) to promote a better integration of all modern media in education; d.) to promote the use of modern media in the classroom by the training of teachers and future teachers; e.) to improve the supply of modern media all over the world by practical projects of international co-production and exchange; f.) to keep contact with and advise industrial manufacturers of hardware and producers of software; g.) to keep member countries informed of developments in the field of educational technology; h.) to cooperate with international organizations in promoting educational technology (p. 256).

The ICEM established a 'working group on administration' in 1969, The United Nations Educational, Scientific and Cultural Organization. UNESCO asked this group to produce a series of comparative studies of audio visual services in different regions of the world, and gave substantial financial support for compiling and printing these studies.

This series was published under the title "Comparative Study on the Administration of Audio-Visual Services in Advanced and Developing Countries." Part I of this series was entitled "The Audio Visual Services in Western European Countries: Finland, Federal Republic of Germany, France, Denmark, Sweden, Turkey, Austria, Switzerland, England

and Wales, and Netherlands." The first edition of this part appeared in 1970; the third edition came out in 1974.

The second part was entitled: "The Audio-Visual Services in the Socialist Countries." These countries were: Bulgaria, Czechoslovakia, Yugoslavia, Poland, Hungary, German Democratic Republic, Rumania, and the Soviet Union. This part was published in 1972. A second edition was published in 1974.

The third part was entitled: "The Audio-Visual Services in Canada and United States of America." This part was published in 1972. A second edition was published in 1974.

The fourth part encompassed the audio-visual services in fifteen African countries: Zambia, Libya, Nigeria, Kenya, Ghana, Senegal, Cameron, Upper Volta, Republic of Central Africa, Rwanda, Gabon, Mali, Dahomey, and Tunisia. This part was published in 1974.

These studies were prepared and published under contract with the United Nations Educational Organization (UNESCO).

Jongbloed (1977) stated:

> Most of these reports mentioned do not deal with av services in higher education, and it was felt that an important item was missing. In 1974 it was tried through a questionnaire compiled by the Hungarian member to get answers from all ICEM members about the organization and management of audio-visual services in higher education in their respective countries. It came out that this is a rather complicated project. Apart from some reactions, it seems that for the time being a general survey on the management of av services in higher education cannot be published (pp. 11-12).

Appendix D includes a directory of some international centers of activity.

Hyer's study (1974) indicated that there were various agencies responsible for specific international programs which included media activities such as the U.S. Commission for UNESCO, the United States

Office of Education: International Education Branch, the Agency for International Development. Some American universities still carry out international programs which include educational media activities for some developing countries. For instance, International Programs at Oklahoma State University was and still is involved in such educational projects. Hyer (1974) emphasized that:

> Many universities also have special international interest and maintain a staff qualified for international work. Examples are Michigan State University and the University of Pittsburgh. Michigan State University, for several years, organized and provided staff to set up a media training program at a university in Brazil. The University of Pittsburgh is involved in many international assignments, particularly in South America (p. 57).

The United States Office of Education has major responsibilities and operation relating to the areas of educational technology. One of these responsibilities is the National Center for Educational Operation and Administration of the Educational Research Information Center program of the office (ERIC).

ERIC publishes Research in Education monthly and provides information on documents in the system through the use of subject index terms, information organized by topic, and provides an access number to identify the documents. It also provides a reproduction service in either microfiche or hard copy form. The ERIC Clearinghouse on Educational Media and Technology performs other services beyond the document processing. It generates newsletters, bulletins, bibliographies and research reviews (Howe, 1980).

There are many international centers involved in media activities in developing and advanced countries. Two such centers are presented in the following paragraph.

The International Bureau of Education (IBE) was founded in 1929 as the first official international body for education. In 1969 IBE became an integral part of UNESCO. Among the objectives of IBE according to Howe (1980) "is to make available to educators in developing countries information about innovations in the structures, content, methods and materials of education" (p. 249). Many offices are run by UNESCO in Asia, Africa and all over the world which contribute to planning, research, evaluation, purchase of equipment, media and instructional materials.

Agency for International Development (AID) conducts a variety of media activities relating to the United States overseas development programs.

Integration of Media Centers and Libraries in Higher Education

Knowledge is presented to the learner in more than the book format. It can be presented in other media such as, records, tapes, filmstrips, study prints, videotape, computer programs, overhead transparencies, etc. New instructional materials have appeared such as teaching machines, programmed instruction, television, educational radio, language laboratories, and computer-assisted instruction.

According to Ducote (1970):

> With the significant changes in the educational environment after World War II, a fresh look at the utilization of learning materials seemed to be in order. Traditionally, library services and audio-visual services remained separate entities for generations. Administrators and faculty looked upon "print" and "non-print" materials as unrelated in the total learning situation. It appeared in many cases that the organization of these materials was based almost exclusively on physical format rather than the interrelatedness of content (p. 2).

The traditional role of the library has changed and a new role has emerged. The concept of library as a place to keep written records has changed.

Beatty (1981) stated:

> The appearance of these many additional resources for instruction and learning has brought about a new role for the traditional library. Beginning in the 1960's, the library began to become an instructional materials center (IMC), providing facilities for cataloging, storing, and disseminating information available in varied forms.
>
> This new library has also grown to include the acquisition, maintenance, and distribution of all kinds of machines needed to project, play, or display the varied instructional materials.
>
> The Federal Government, through such laws as the National Defense Education Act, the Elementary and Secondary Education Act, the Higher Education Facilities Act, and Public Law 94-142, which guarantees an appropriate education for all handicapped children, has provided funds for the establishment and maintenance of instructional materials centers in schools, colleges, and universities throughout the United States (p. 6)

Current trends in colleges and universities are moving toward the unification of library and media services into a single operation known by any of several titles: Library and Learning Resources Center, the Instructional Media Center, etc.

According to Peterson (1975), "The concept of the learning center has been analyzed as the four-part amalgamation of library, audiovisual nontraditional, and instructional development services" (p. 22). Major purposes identified for the learning center, include: 1) providing service for faculty and students, 2) providing individualized and individual experiences, 3) supporting the instructional program, 4) providing leadership in the area of media by helping faculty with utilization, selection and evaluation of media, and 5) providing a variety of media to the students to maximize their learning (Peterson, 1975).

Some librarians adopted a negative attitude toward integration of library and media services fearing that media would replace the book. But the point that should be taken into consideration in this respect is that all instructional materials including books, are to help the learner. It is not a matter of preference of one medium over another; it is what the patron needs, uses and helps him learn. Peterson (1975) emphasized this view by saying:

> But in the learning center as an integrated, fully coordinated facility, all media and their functions can be combined to meet the educational demands of the patron. Though the learning center should be able to eliminate the dichotomous philosophical split between print and nonprint professionals, it is important to understand how these various philosophical postures are "naturally" developed (p. 24).

A learning resources center which combines all the instructional materials can best accommodate the needs of the learners and their individual differences. It provides a learning environment for students and faculty.

Peterson (1975) stated:

> The Learning Center will totally support each educational instruction method of each instructor, meet the separate and individual learning and study needs of each student, and will provide cultural and educational resource opportunities to the community (p. 27).

Wyman (1967) suggested a solution for the problem caused by growth of media programs and whether they belonged in the domain of the librarian or the audio visual specialist by combining all media print or non print in one instructional materials center. Such a center would help faculty and students obtain more easily the materials they wanted.

There are other reasons behind the trends for the unification of library and media services. Enrollments are declining and budgets are

tightening. Such factors called for the reorganization of services on many campuses. Sakovich (1979) stated:

> Because this is a time of stabilizing or decreasing enrollments, however, and because four-year colleges and universities no longer enjoy unlimited growth, state funds as well as federal government monies, foundation grants, and other sources of income are tightening.
>
> As these economic realities become pervasive, educational institutions have had to take a hard look at various means of cost-effectiveness. One area of investigation is the consolidation of some educational resource services, especially those whose learner-oriented functions seem similar in scope. Thus the demand for the consolidation of learning resource services is predicated on more effective utilization factors as well as on cost (p. 57).

Burlingame (1974) conducted a comparative study of organization characteristics used in learning resources centers and traditionally organized library and audio visual service facilities in four Minnesota and Wisconsin senior colleges. He justified his study by stating:

> Administrators of colleges are frequently asked to consider proposals to integrate or combine part or all instructional support services. The rationale that centralization will result in improved administration, better planning, coordination of services, and lesser costs is often voiced, but research verifying this statement is lacking (p. 1)

One way that has been suggested for achieving more effective use of resources is by combining the traditional library and audio visual units into one learning resources unit since greater utilization of space and manpower will occur (Burlingame, 1974).

According to Burlingame, "The establishment of learning resources in higher education is a product of the recent past. The greatest acceptance in higher education for this concept has been in the junior or community colleges" (p. 2).

Raines' survey of developmental trends in libraries and learning resources centers found that "approximately three out of four

reporting colleges have integrated their libraries and learning resources" (p. 3).

Ellison (1972) conducted a study of learning resources centers on college and university campuses. He identified principles that validated the concept of an integrated learning resources center on a university or college campus. Among those principles were:

> Faculty and students are better served by one facility housing print, nonprint materials and equipment.
>
> One budget should be allocated for all print and nonprint materials and equipment.
>
> All distribution and retrieval of print, nonprint materials and equipment should be centralized (pp. 212-213).

Felty (1975) conducted a study of audiovisual programs in 131 two-year colleges in seven states. One of his major findings was that there was a tendency toward unification of print and non print media under one director, usually a librarian or member of the library staff or a director of a learning resources center.

Fuller (1976) conducted a research study to determine the administrative and organizational role of the library in non print media programs in 36 accredited colleges in higher education in Tennessee. The findings indicated one-third of the responding libraries did not have and were not planning a comprehensive collection of non-print materials with compatible equipment. More than half the respondents indicated that their colleges had or was planning to have curriculum laboratories but only half would be under the administration of the library. Of those having or planning a centralized audio visual equipment distribution center seventy percent indicated the administration of it would be under the library.

Vorakitpokatorn (1980) conducted a study to investigate student and faculty attitudes toward the need for media resource centers in three selected universities in Thailand. His study indicated that all of the faculty and almost all of the students would prefer to have a media resource center in each Thai university. Based on the result of this study, he recommended that each university in Thailand had to establish a media resource center.

The Media Committee of the Atkins Library of the University of North Carolina performed a 3-month study to review the library's existing policy and to make recommendations for improvement and expansion. The committee proposed the integration of all learning materials and services at the university. The committee also recommended to reorganize all media resources and services in one campus agency (North Carolina University, 1974).

Chicago State College published the "Final Report of the Task Force on Instructional Media" in 1972. Among the major recommendations for the '80's were: 1) learning resources, e.g., media center, library, computer system, common distribution systems for the resources both on and off campus, etc. should be coordinated so that they become a functioning integrated system" (p. 5). This recommendation also includes helping faculty develop software, and providing workshops in the use and preparation of media. "2) We recommend that an important function of an integrated instructional system is to insure compatibility of hardware and to coordinate the development of software" (p. 5).

This recommendation also includes more emphasis to be given to AV-TV software development, computer system to be linked more to the library and media center, policies of using the media and purchase and

maintenance to be established.

> 3) Since the effective functioning of an integrated instructional system depends markedly on the distribution of information on and off campus, and since there are a variety of modes that can be considered, we recommend that distribution problems and formulation of general policy related to distribution receive immediate attention (p. 6).

This recommendation also includes the need for experimentation with a variety of open and closed circuit broadcasting, video, audio, and to be aware of the potentialities of cable T.V. within the community. "4) The faculty rights and responsibilities with regard to instructional media should be clarified by the faculty senate and by the Administration of the college" (p. 7). "5) Technology should be the tool to reach certain goals, and these goals in a campus as diverse as Chico may be difficult to get agreement on" (p. 8). "This recommendation includes offering a larger variety of media" (p. 8).

> 6) In the selection of hardware, in the planning for the new library and other campus buildings, and in the development of Continuing Education Programs; the likelihood of major long range changes in student interest and information distribution should be kept in mind, and purchases and programs should be as adaptable as possible.
>
> 7) The Task Force recommends that it continue its present role until an office or individual is assigned the coordination function. After an assignment is made, an instructional media advisory should be established (p. 8)

8) There should be administrative encouragement of software production and use of instructional media by making available released time assignments for faculty.

However, this does not mean that unification of the library and media services will always be successful. For instance, the University of Calgary as Norris (1975) reported was the first university in Canada to combine its library, computer center, and audiovisual services into one unit. After three years, it was disbanded.

In order for the integration to be successful, there must be a strong commitment to the coordinating organization. This coordination must be at a high administrative level (Norris, 1975).

Burlingame (1974) who studied the two organizational types in order to determine the advantage of each, concluded that the services provided by the two types of organizations were not necessarily different, and that the attitudes of the director and the staff had the most important influence on the success of the service.

Related Research Studies

So far most research in the area of media programs in higher education has concentrated on quantitative evaluation. Promotion and development of media programs require that qualitative evaluation should be given a fair share of research. Simonds (1979) emphasized that:

> One of the more pressing concerns facing media services is the need to be aware of the quality of service they are providing. It is not too difficult to determine the quantity of services. One simply counts the reservations and deliveries of equipment, films, and productions in a given period of time. But quality has to do with the support provided for media services by faculty and administration when budgets are tight. Who is the first to go? (p. 49).

The professional literature on evaluating media programs and on comparative studies concerning media programs in higher education is limited. Graf (1976) in his study reported: "The professional literature, other than specific research investigation, on the subject of media service programs in higher education was somewhat limited" (p. 17). He added:

> A review of the literature, then, revealed that a limited number of studies have been conducted concerning educational media service programs in higher education within the states. However,

> no comparison studies of interstate or intercollegiate nature were discovered. Available literature was therefore limited to studies of individual campus media service programs and comparisons of programs within a particular state (p. 17).

The following review of related research studies are arranged chronologically.

Hoyes (1960) studied the organization and administration of audio-visual programs in the state teachers colleges of Pennsylvania. He recommended that more nonprofessional members had to be added to the audiovisual center staffs and each center had to publish and distribute information to the faculty and students about the availability of media, services and equipment.

Kearney (1962) investigated the audiovisual instructional materials services at thirty-two selected private colleges of the United Negro College Fund (UNCF). Among his findings pertinent to this study were:

> - The audiovisual instructional materials services at many of these colleges are poorly organized, and in some of the colleges there is no organization at all.
>
> - The lack of an efficient, well-organized audiovisual instructional materials program at many of these colleges is due, in large measure, to a lack of funds.
>
> - The present classroom facilities are not designed for the effective use of audiovisual instructional materials. In addition, housing facilities for the audiovisual instructional materials program at many of these colleges are inadequate (pp. 1970-1971).

Kearney also recommended a separate budget for each program.

Swiger (1968) conducted a study to investigate and describe the management of media services functioning in institutions of higher education in the United States and its territories, 1149 institutions participated in the study and responded to the questionnaire. The study indicated that 762 institutions had or planned to have a media service. Five hundred and sixty-four institutions had centralized media

service programs which provided media services for all academic departments. The study also indicated that personnel and physical facilities correlated with the services provided. The study also showed the three most frequently provided services were: scheduling materials and equipment, informing the faculty about hardware and software and maintaining files on sources of new materials. The most frequently produced items were: transparencies, audio-tapes, and slides. The study also showed that "media center administrators express concern about the lack of qualified members, obtaining an adequate budget, and physical facilities" (p. 3510).

Lambert (1970) in this study evaluated the educational media program in fifteen selected colleges and universities in Florida. He wanted to determine the status of the educational media program, the extent of institutional commitment and its relation to implementation of media.

Lambert used the Fulton instrument "Evaluative Checklist: An Instrument for Self-Evaluating an Educational Media Program in Colleges and Universities." His study indicated that the tax-supported institutions had more highly developed educational media program than church-related and non-church-related private institutions. The predominantly white institutions had a more highly developed educational media program than predominantly black institutions.

As for institutional commitment to the educational media program, the study indicated that the tax-supported institutions were more committed than church-related and the non-church-related private institutions. It also indicated that the predominantly white institutions were more committed to the educational media program than

predominantly black institutions and had a higher level of implementation. It also indicated that tax-supported institutions had a higher level of implementation than church-related and the non-church-related private institutions.

One of the implications of the study;

> Colleges and universities must possess and exhibit a high level of institutional commitment to the improvement of instruction by providing a broad spectrum of educational media, services, and technological resources to appropriately mediate the instructional process (p. 3295).

Sanner (1971) conducted a study to determine the adequacy of the educational media programs of the California State Colleges as assessed by a sample of 482 faculty members of eighteen colleges.

Based on a review of the related literature, Sanner developed an opinionnaire to measure the faculty opinion of the educational media service programs at the selected colleges. Among his major findings according to Graf (1976) were:

> 1. The identified, inadequate educational media program characteristics of the California State Colleges can be the basis for improving the educational media programs of each college.
>
> 2. The identified, adequate educational media program characteristics of the California State Colleges might be used as guidelines for improving the educational media programs of each college (p. 34).

Sanner reported:

> The major recommendation suggested by the findings of this study was that greater emphasis and effort should be made to inform the faculties of the California State Colleges about their own educational media programs and educational media in general (p.143-A).

Carlson (1971) conducted a study to determine what factors influence the utilization or lack of utilization, of newer instructional media. One hundred and thirty-four professional physical education

faculty members in teaching undergraduate majors at big ten universities were surveyed.

The major findings of this study were as follows:

1. The faculty, regardless of curricular areas, indicated a neutral attitude toward the use of newer instructional media.

2. The department of audio visual instruction members and faculty members preparing their own mediated materials, appeared to be the principal dissemination sources that helped prepare and provide instructional media information and service.

3. The three most important sources providing information to faculty about media were: experience with media itself, staff members in the department utilizing the media, and observation of media in action.

4. The most preferred media by the faculty were motion pictures, still picture sequence, film-loop, filmstrip and video-tape. The future use of the media appeared to be limited except for increased use of motion pictures and video-tape.

5. The major deterrents to its use, in order of occurence were: lack of suitable materials at the college level, lack of time to locate and preview materials, scheduling, lack of sources of media and budget limitations.

6. The major skill and information areas with which faculty desired assistance were: skill in designing mediated materials, skill in evaluating the effectiveness of media, and knowledge of research with media for implications in the teaching of physical education.

7. The extent of media use, when subjected to a use and nonuse scale, indicated that six percent of faculty were found to be users and 94 percent were found to be non users with the five most preferred media.

8. The factors such as attitude, age, rank, teaching experience, coaching experience, and media training appear not to be associated with whether a faculty member is considered to be a user or nonuser of media (p. 5104A)

Samuels (1971) conducted a study to compare the roles and functions of professional media personnel identified by prospective employers with curriculums offered by departments of audiovisual education in the Commonwealth of Pennsylvania. The populations consisted of a random sample of 109 chief school administrators from 345

organized public school districts and eight superintendents, and 200 academic deans or their authorized representatives from institutions of higher education in the Commonwealth of Pennsylvania.

The study indicated more positions were expected to be available in institutions of higher education than in school districts.

> College and university departments of audiovisual education were not found to be preparing media personnel to meet the needs expressed by employers. Curriculums tended to stress competencies considered unimportant by employers or competencies capable of being performed by para-professional personnel. It was concluded that these departments must undertake a re-evaluation of their existing programs (p. 6016).

Stephens (1971) conducted a study to determine the deterrents to the utilization of educational media in higher education. Three hundred and ninety faculty members, 160 media personnel and 138 academic deans at 201 colleges and universities were involved in his study.

The study indicated positive correlation between media utilization and attitude toward instructional technology and between media utilization and perception of major deterrents.

> The major deterrents were:
> 1. Lack of knowledge concerning the preparation and utilization of audio visual materials and of available audio-visual services
> 2. Lack of time to plan and utilize audio-visual services
> 3. A shortage of appropriate materials
> 4. A shortage of finances
> 5. Audio visual methods incompatible with educational philosophy
> 6. Lethargy or resistance to change
> 7. Inefficient circulation of materials and equipment
> 8. Lack of organization
> 9. Inadequately designed classrooms (pp. 3577-3578)

Stephens concluded that media utilization rates tended to be higher among those faculty with more teaching experience, and who had positive attitudes toward instructional technology. He further recommended an increase in audio visual budgets, classrooms to be designed for media utilization and more released time to be given to the faculty for planning and developing materials.

Petty (1972) used Fulton's "Checklist" to evaluate and compare the levels of adequacy in instructional media programs in selected colleges and universities in Kansas. He recommended reevaluation of the institutional commitment to instructional media to improve the programs. In 1972 the Carnegie Commission on Higher Education published its report entitled "The Fourth Revolution: Instructional Technology in Higher Education."

The report is interesting because it included recommendations to promote and develop educational media in institutions of higher education in the United States by the year 2000. This report could be interesting to universities and colleges in other countries as well.

Edgerton (1972) conducted a comparative study in which he analyzed the function of the centralized educational media services unit at Norfolk, Virginia. He made comparisons with four other selected colleges with centralized media services to provide a rationalization for the centralization of educational services at Norfolk State College. Respondents to his questionnaire preferred a centralized media service program, relative freedom in access for students to all media and materials on the campus, and more faculty and student participation in the selection of media.

Edgerton further recommended that:

1. The institution should have a philosophy and policy statement indicating clearly defined policies for maintaining a quality media educational program.

2. Staffing should be headed by a coordinator who should be a broadly qualified generalist.

3. College-wide representation in policy matters and program development should be attempted through the establishment of a college-wide representative council.

4. The instructional aspects of media courses (e.g. in art or teacher education, etc.) should be coordinated from one central program.

5. There should be less duplications of facilities, equipment and materials, and greater efficiency of personnel.

6. The coordinator should have long-range plans for the development of his staff, and the faculty and students of his institutions (p. 6707-A)

Bell (1972) conducted a descriptive study of the impact of Title VI of the Higher Education Act of 1965 on the growth and development of instructional media programs in state-supported colleges and universities of Arkansas. A questionnaire was constructed and delivered to instructional media directors of the eight state-supported colleges and universities of Arkansas.

The study indicated that more media and materials were purchased during the Title VI era; course offerings increased; and more faculty utilization of media was seen. The study also indicated that there were no graduate or undergraduate programs offered.

Bell concluded that Title VI had no impact on the number of workshops, but there was an overall positive growth pattern for all institutions.

The status of the media center programs in community colleges was studied by Graves (1972). This study was to determine the status of

the staff, services, facilities and plans for developing instructional media centers in 94 community colleges in California as perceived by the directors of the media centers in those colleges.

The findings of the study revealed that the general status of the media centers were average or below average - staffing inadequate, especially in production and development of a systems approach area. The study also indicated the need for increasing the professional and supporting staff and enhancing media facilities to support instruction on the campus.

Peterson (1972) conducted a study to determine quantitative differences in the various professional preparation programs which offered the doctorate in instructional media. He collected data from programs themselves, the doctoral students, the faculty of media preparation programs, and the employers of the doctoral graduates. A wide quantitative variance was found in faculties, students, and programs. The study recommended "the need for the establishment of standards for the terminal criteria of program graduates and for the accreditation of programs" (p. 6134).

Allen (1972) conducted a study to evaluate the educational media programs in Oklahoma universities and colleges. Information from thirty-six institutions was supplied by respondents who evaluated their respective educational media programs. Fulton's "Evaluative Checklist: An Instrument for Self-Evaluating an Educational Media Program in Colleges and Universities" was used to measure the quality of the educational media programs. "Quantitative Standards for Audiovisual Personnel, Equipment and Materials in Higher Education" was the instrument used to measure the quantity of the educational media

program. The major findings of Allen's study were pertinent to this study; these findings were:

1. No significant differences were found between the qualitative and quantitative data reported by all state-owned universities and colleges and all independent colleges.

2. No significant differences were found between the qualitative data reported by all universities and senior colleges and all junior and community colleges; a significant difference was found between the quantitative data reported by these same institutions.

3. A significant relationship between the quantitative and qualitative data reported by all Oklahoma universities and colleges.

4. A significant relationship was found between the higher educational media programs and all Oklahoma universities and senior colleges.

5. A significant relationship was noted between the qualitative data reported by the junior and community colleges and the position of the immediate supervisor of the media director.

6. The higher quality media programs had full-time media directors and support personnel.

7. Two of the thirty-six institutions had all the materials necessary for a basic media program rating as determined by the DAVI standards.

8. The equipment data showed that none of the thirty-six institutions had the necessary media equipment in all nineteen areas to merit a basic rating according to DAVI standards.

9. A high positive correlation was found between the overall budget expenditures of the 36 institutions and the overall qualitative rating of their educational media program ($r=.8262$, $p < .01$).

10. While there was no significant difference among the qualitative data reported by the five groups of institutions, the highest qualitative data were reported for the state-owned universities and senior colleges and the lowest qualitative data were reported by the state-owned junior colleges.

11. According to the data, the weakest area reported on the qualitative data insturment by the 36 institutions was in media utilization and in-service education for instructors.

> 12. The second weakest area reported on the qualitative data instrument by the 36 institutions was their lack of commitment to the educational media program.
>
> 13. The qualitative data reported by the 36 institutions indicates that most media budgets were developed without adequate planning or involvement of professional media personnel.
>
> 14. The qualitative data analysis indicates that the media programs' personnel, equipment, and materials were not well located (geographically), not readily accessible to instructors in relationship to the rest of the ongoing educational process (p. 2003-A).

Allen also concluded that many Oklahoma universities and colleges did not regard the educational media program as an integral part of the instructional program; many institutions did not have a sufficient quantity of materials and equipment to meet DAVI standards; and the quality of an educational media program was related to the quantity of personnel, equipment and materials. He also suggested that his study indicated a preference for a centralized media service program, and he also made interesting recommendations (Allen, 1972).

Farris (1973) conducted a study to determine the quality and function of educational media programs as evaluated by instructors, media center directors, and administrators in Arkansas higher education. Farris also used Fulton's Checklist to evaluate the media service programs in Arkansas' colleges and universities.

> The study showed that the educational media directors in private colleges and universities are much more in agreement with the administrators than they were with the instructors about the quality of the educational media programs within their institutions. On the other hand, the educational media directors in public colleges and universities are much more in agreement with the faculty's qualitative assessment of the educational media program in their institutions than they are with the administrators.
>
> Instructors, administrators and even some media directors need more training in educational media in the instructional process through in-service training sessions, seminars and workshops since it isn't convenient for most administrators and instructors

to attend regular audiovisual class sessions.

> There is by and large, greater agreement between the instructors and media personnel, than between the media personnel and administrators (p. 5475).

As a result of his study, Farris made the following specific recommendations:

> 1. That the academic officers in the public four-year colleges and universities give additional support to the educational media directors through increased appropriations and raised priorities in academic affairs.
>
> 2. That the administrators and media personnel endeavor to serve the instructional needs of the faculty in a more constructive manner.
>
> 3. That the four-year institutions' educational media director's immediate supervisor be the chief academic officer.
>
> 4. That consultative services in media utilization be high in the order of educational media priorities.
>
> 5. That the educational media staff should be closely involved with the other staff members in curriculuar planning.
>
> 6. That studies be made on each campus to determine the percentages of total institutional budget that is allocated to educational media purposes, and that an analysis of the factors that determine an educational media budget be made (p. 5475).

Colby (1973) conducted a study to assess specific media utilization and management opportunities in higher education and to suggest recommendations for the utilization and management of media for the University of Montana. He suggested five major management and twenty major utilization recommendations to be considered, adapted and implemented by the University of Montana.

Washabaough (1973) conducted a study to determine the administrative factors which affected program comprehensiveness and media utilization in twelve selected junior colleges in Florida.

The study indicated that both the degree and the field of the degree of the director influenced media utilization.

Kennard (1973) conducted a study to determine what relationship exists between the quality of the educational media program and media competency level achieved by teacher graduates in eleven selected teacher training institutions in Louisiana. Kennard used Fulton's "Evaluative Checklist"to show the quality of the program and a Media Competency Emphasis Checklist to indicate the media competency achieved by trainees.

Among his major conclusions was that institutions with higher quality media programs turned out graduates with high levels of competency.

Felty (1975) conducted a study to identify the relationship of the audio-visual services unit to other colleges areas, available equipment, policies of the program and factors that inhibited media utilization.

The study covered 1311 two-year institutions. The study indicated a tendency toward unification of print and non-print media. Only 39 percent had full-time directors. This philosophy tended to emphasize providing basic services to facilitate the instructional process. Staffing was inadequate. Public colleges spent more on media services than private colleges.

Blodgett (1977) conducted a study to determine how systems analysis would apply to the evaluation of media services in institutions of higher education and to identify problems of this application and offer solutions to the problems identified. The primary method he used to gather data was conducting personal interviews.

This study indicated that:

> The method appeared to allow for the discovery of the major problems to assist in providing suggestions for alternative

> solutions which seemed to be viable. The method also allowed the investigator to examine the unique characteristics of the institution under study as these characteristics related to the media service. It appears from this study that the proposed method of systems analysis of media services in institutions of higher education might prove useful in finding the root causes of the lack of media use in higher education (p. 2006).

One of the interesting studies in the area of evaluating educational media service programs in higher education was Graf's study (1976) whose purpose was to determine the adequacy of the educational media service programs of the Big Eight Universities as assessed by the media directors, the departmental chairmen, and the faculties of the universities. The Big Eight Universities involved in the study were: Iowa State University, Kansas State University, Oklahoma State University, University of Colorado, University of Kansas, University of Missouri, University of Nebraska, and University of Oklahoma.

Graf used an instrument developed by Sanner, the "Educational Media Program Faculty Opinionnaire" to collect data for the study. Respondents were asked to provide their perceptions of the adequacy of forty-four elements of media service programs. These elements were listed under seven sections: 1) institutional commitment, 2) staffing, 3) communication, 4) budget, 5) facilities, 6) instructional systems, and 7) instructional materials center.

The researcher felt that there was a great similarity between Graf's study and this study for several reasons. First, Oklahoma State University was involved in both studies. Second, similarity in the purposes of the studies was seen. However, there are a lot of differences as well. Graf's study covered eight universities but the present study covered only three universities, two of which were overseas Jordanian universities.

Because of the importance and relevance of Graf's study to this study, the researcher preferred to quote the major findings and recommendations in their entirety from his study. The major findings of Graf's study were as follows:

1. Faculty and departmental chairmen respondents at each Big Eight institution were in general agreement concerning their perceptions of the adequacy of their respective educational media service programs.

2. Generally, there was little difference between the perceptions of the media director and the perceptions of the faculty or departmental chairmen at each Big Eight institution. While some differences were observed for various statements in the instrument, those statements rated on the lower end of the range of mean scores by faculty and departmental chairmen respondents were also rated lower by the media director.

3. For those statements which had lower mean scores, it was found that a large percentage of faculty and departmental chairmen respondents answered in the no information response category.

4. Faculty respondents at each Big Eight institution consistently rated the following statements highest: (a) the availability of usuable instructional facilities, equipment, and materials; (b) are so located that they are easily accessible; (c) easily initiated; and (d) promptly confirmed and scheduled.

5. Departmental chairmen respondents at each Big Eight institution consistently rated the following elements of the media service program the highest: (a) easily initiated; and (b) promptly confirmed and scheduled.

6. The following statements were consistently rated the lowest by faculty and departmental chairmen respondents at each Big Eight institution: (a) dial-access retrieval; (b) maintain faculty status and rank; (c) comprehensive by maintaining existing levels of media services; and (d) flexible by making provision for new and unique media services and equipment.

7. Significant differences were found to exist between the perceptions of all faculty respondents and the perceptions of all other respondents for seventeen of the forty-four statements contained in the instrument.

8. Significant differences were found to exist between the perceptions of all departmental chairmen respondents and the perceptions of all other respondents for seven of the forty-five statements contained in the instrument.

9. Differences which appeared to be significant were found to exist between the perceptions of all eight media directors and the perceptions of all other respondents for seven of the forty-four statements contained in the instrument.

10. Faculty and departmental chairmen respondents at Iowa State University, Oklahoma State University, the University of Colorado, The University of Kansas, The University of Missouri-Columbia, The University of Nebraska, and the University of Oklahoma perceived a campus-wide media service agency as being most available or most accessible to the faculty. Respondents at Kansas State University indicated that a college-wide media service agency was most available or most accessible to the faculty.

11. Overall, faculty respondents at the University of Kansas and the University of Nebraska rated their media service programs higher than did departmental chairmen respondents.

12. The departmental chairmen at Iowa State University, Kansas State University, Oklahoma State University, The University of Colorado, The University of Missouri-Columbia, and The University of Oklahoma rated their media service programs higher than did the faculty respondents.

13. Overall, media directors at seven of the Big Eight institutions rated their media service programs higher than did faculty and departmental chairmen respondents. The media director at the University of Oklahoma rated the media service program lower than both faculty and departmental chairmen respondents (pp. 229-231).

Graf concluded that media director respondents tended to rate their particular educational media service programs higher than did faculty respondents. He also concluded that seven of the eight institutions in the Big Eight conference provided adequate media programs as perceived by respondents.

As for recommendations, Graf made the following:

1. It is recommended that a needs assessment study be undertaken for the identified, inadequate elements of the educational media service programs at each institution in order to determine whether a need for that element of the program exists.

2. It is recommended that the administration of each Big Eight institution, either directly or indirectly, be made aware of the results of this study, including the respondent comments, so that they may better understand faculty and departmental chairmen perceptions of the success of the program of media services

currently being provided.

3. It is recommended that where the professional staff of the educational media service program maintains faculty status and rank, they make an increased effort to make their educational colleagues aware of their status as faculty through participation in faculty governance, institutional committees, and other out-reach activities.

4. It is recommended that the staff of the educational media service program at each Big Eight institution undertake a vigorous campaign, through the publication of a media newsletter, inservice activities, and workshops, to make faculty, staff, and students aware of the facilities, services, and materials available.

5. It is recommended that a similar study be undertaken to determine faculty and administrator perceptions of the adequacy of individual college-wide or departmental level media service programs at institutions where such programs exist.

6. It is recommended that the administration of each Big Eight institution attempt to clarify the role and function of the educational media service program in terms of institutional mission.

7. It is recommended that a study be made at each Big Eight institution of the funding levels, budgetary processes, and recordkeeping elements of the educational media service program (pp. 232-233).

Dipaolo (1979) conducted a study to identify exemplary media production services in higher education as an integral part of the instructional process. His sample was twenty-six media centers nominated by media experts, chairpeople of departments granting graduate degrees in instructional media from twenty-four states. The findings were summarized under seven headings: 1) administration, 2) services, 3) functions, 4) personnel, 5) policies, 6) finances, and 7) others.

The level of media services offered by educational media programs in higher education usually suffers from shortage of staff and finance. A historical study conducted by Loughlin (1980) to investigate the founding of the Audio visual Center at the University of Connecticut indicated that the directors and the staff were of the opinion that it

was understaffed, underfunded, and overworked for much of the time. The Center was never given the resources it needed to reach its full potential or to enable it to offer all the requested services since its establishment in 1941. The study also indicated that the Center was seen as a part of the School of Education and it never developed a separate entity.

Review of literature indicated that large public institutions offer a higher level of media services than the smaller private ones. A study was conducted by Dull (1980) to determine if Florida's four year and upper division colleges and universities developed media competencies in their elementary teacher education methods courses. The study indicated that:

> Large institutions (96%) provided better instructional material center facilities with a wide variety than small institutions. More large institutions (94%) provided a material production facility for their elementary education majors to produce materials than small institutions (p. 1902).

Many factors affect faculty use of media and their attitudes toward media programs. A study conducted by Librero (1981) to identify the factors which affected media utilization by faculty of the School of Education at Indiana University indicated that lack of time to select and preview commercial materials were the major deterrents.

The study showed that the faculty members involved in the study were extensive users of a wide variety of media and expressed interest in attending in-service training to improve their utilization of media. The study also indicated that the faculty judged the media program at the university as adequate.

Anandam and Kelly (1981) seemed to be not so optimistic and enthusiastic about the real role played by technology in higher

education and that the hardware developments are far ahead of software developments. They reported the following:

> What has become of the long assault on higher education by media and technology enthusiasts? Do traditional systems of teaching prevail against all odds? Based on approximately 1,000 in-depth interviews with state commissioners, administrators, faculty, students and alumni in six states, the question is raised: Does education want what technology can deliver? This study concluded that what is generally in use (meaning what more than three-quarters of the educational institutions of a particular type are using) is not very much different from what was generally in use in the '50's - chalkboard, a piece of chalk, some books, filmstrips, audio cassettes, projector of some sort, or an occasional computer terminal. Examined from a different perspective, in the late '70's, expenditure for technology consisted of 0.3 - 0.5 percent of total expenditures at the elementary and secondary schools, 0.2 - 0.4 percent in vocational and 2-year colleges, and 0.5 - 1.1 percent in four-year colleges and universities. In other words, the technological innovation that has skyrocketed in industry is rather limited and isolated in education (p. 128).

Bowers (1981) conducted a study to examine the nature of the state approved programs in Oklahoma and to develop a profile of preparation programs designed to prepare school librarians, audiovisual specialists and other media specialists in seven colleges and universities in Oklahoma.

Among her findings were:

1. Six institutions were approved to offer the baccalaureate and the master's degree. None were approved to offer the sixth-year or doctoral degree (in library science).

2. Four institutions were approved to offer preparation leading to the master's degree with emphasis in audiovisual education. One offered the sixth-year and doctoral degree.

3. All doctorates in audiovisual education entered positions in higher education. None accepted employment in an elementary or secondary school (pp. 138-139).

Her recommendations concentrated on the need for further study to identify how many school librarians and audiovisual specialists

perceive the adequate preparation programs and the duties expected from them in their positions.

Studies emphasize that the media center services programs in higher education in the United States are increasingly improving in terms of quality and quantity of services offered year after year. Albright (1983) prepared a report on the status of media centers in higher education. The report was sponsored by the Division for Educational Media Management (DEMM) a division of Association for Educational Communications and Technology (AECT).

Between October, 1982, and June, 1983, the Task Force on the Status of Media Centers in Higher Education, of AECT's Division for Educational Media Management (DEMM) surveyed 196 members of a stratified sample of college and university media centers.

Data were gathered on budget personnel levels, the degree of moral support provided by supervisors and the faculty clientele; media center activities in instructional computing, distance learning, delivery and the degree to which media centers generate income and promote services. The report also included the media center directors' perceptions of the status of their media programs.

Although Albright's study was not one hundred percent similar to this study, the reseacher felt that quoting the results and recommendations of the report were of great value since his report is one of the most recent studies in higher education.

The results may be summarized as follows;

1. Although budget and manning trends do not support such an assessment, 82 percent of the respondents felt that their media operations were either "very healthy" or "somewhat healthy" in 1982-83, including 86 percent of the private institution respondents. Sixty-eight percent felt that their media centers were in a healthier posture in 1982-83 than in 1977-78. Among

private schools, 80 percent held this view.

2. Location may be a factor in determining media center health. Centers in financially troubled states appear more likely to be in less healthy posture, although the data are quite inconsistent.

3. Moral support of the administration, client demand, quality of staff, good management practices, and history of reliable products and services are the most frequently cited reasons for media center health. Budgetry conditions dominate the list of reasons for lack of health.

4. While some media centers continue to receive satisfactory budgetary support from their institutions, 43 percent of the respondents at public and 30 percent at private institutions reported no budgetary growth in 1982-83. Among public institutions in the "unhealthy" category, just 17 percent were awarded increases that kept up with a 6 percent annual inflation rate.

5. Only 28 percent of all public institution media centers providing this information were able to maintain budgets that kept up with a 60 percent inflation rate between 1977-78 and 1982-83. Fifty-four percent were unable to increase their budgets by as much as 30 percent, and 9 percent had no increase at all over this five-year period. By contrast, 55 percent of the private institution media center budgets were increased by at least 60 percent.

6. Most large media centers generate income, while most small ones do not. Charges for services, rentals, and sales of supplies were the most frequently mentioned revenue-generating activities.

7. Less than 15 percent of the respondents reported receiving grants from off-campus sources in 1982-83. Most were for relatively small amounts and appeared to support software collections.

8. Sixty-five percent of the media centers at public institutions were staffed by five or more people in 1982-83, while 79 percent of the media staffs at private colleges had fewer than five persons. Thirty-five percent of the private media centers had just one full-time employee, and 13 percent had none.

9. One-fourth of all public institution media centers surveyed reported the loss of at least one staff position in 1982-83, while just 4 percent of the private colleges lost media positions.

10. Between 1977-78 and 1982-83, 40 percent of the public institutions surveyed lost more media positions than they gained, while only 8 percent of the private colleges lost media positions.

The 108 public institutions responding to this item collectively suffered a net loss of 47 positions during this five-year period, while the 84 private colleges added 32 positions.

11. Administrative and technical positions were most frequently deleted, while production positions, particularly in video, were most commonly added.

12. The level of moral support provided to media centers by senior administrators and faculty members appears to be high, suggesting personal, if not financial, commitment to media programs.

13. Media centers in higher education are known by a wide variety of functional titles. Fifty-four unique titles were identified among the responding institutions.

14. Just 22 percent of the respondents reported any activity in the area of instructional computing, and most of these services appear to be minimal. Very little activity was reported by liberal arts and community colleges.

15. Media center involvement in institutional distance learning efforts appears to be minimal, although some respondents reported thriving cable television or ITFS activities.

16. Most media centers actively promote their services. Flyers and brochures, media workshops, and periodic newsletters were cited frequently.

17. Thirty-nine percent of all public comprehensive colleges responding reported some damage from on-campus competition, a problem apparently unique to this group of respondents.

18. Budget-related concerns dominate the list of most serious challenges facing respondents.

The report concludes with recommendations for AECT and DEMM action (pp. I-IV).

Albright made the following recommendations:

Recommendation #1. AECT and DEMM should place a much greater emphasis on delivering professional development training to practitioners at the local, state, and regional levels. Establishing and promoting an AECT speakers' bureau, providing greater support to Regional Coordinators, and improving liaison with State Affiliates for the purpose of providing program support are three vital steps that can be taken.

Recommendation #2. AECT should develop a comprehensive directory listing the center title and address and names, titles, and telephone numbers of key personnel in every media center, centralized and specialized, in every institution of higher

education in the United States. Such a directory would provide a superb mailing list and would be invaluable in the execution of future research. The Association's commercial members should be approached for funding, since this directory would greatly assist their marketing efforts.

Recommendation #3. AECT and DEMM should sponsor a symposium, possibly to be held in conjunction with the national convention, to focus the role of the media center in academic computing. What should this role be vis-a-vis that of the campus computer center? What can the media director do to ensure that this role is complementary? What computing services should a media center provide, and how can they be started?

Recommendation #4. As advertising revenues shift the burden of publishing Media Management Journal from the DEMM budget, the Division should develop a series of Media Management Monographs providing insightful, directly relevant, high quality essays on topics of concern to practitioners. Topics could include basic management skills, public relations techniques, copyright, and revenue generation. The national office should publish and market the monographs.

Recommendation #5. DEMM should also devote a portion of its annual budget to sponsoring research in the field of media management. No literature review is included in this report because the only recent citations available are isolated doctoral dissertations of marginal relevance to this study. Several topics for future research have been proposed in this report.

Recommendation #6. This study has idenified several unique and highly successful media programs. DEMM should develop case histories of these media centers, emphasizing the formulas for success, and publish them singly in Media Management Journal and collectively through the national office's non-periodical publications program.

Recommendation #7. AECT and DEMM should place a high emphasis on programming in the following areas. This training must be comprehensive and intense, and it should be capable of being implemented in any state.

1. Basic budget protection.
2. Identification and acquisition of grant funds.
3. Techniques for generating income.
4. Reallocation of resources.

Recommendation #8. AECT and DEMM should establish a committee to study the lack of standardization of functional titles among media centers in higher education, determine if important implications exist, and make recommendations as appropriate.

> Recommendation #9. Many of the respondents with unique success stories indicated willingness to share these experiences in AECT conference sessions. DEMM should give serious consideration to how these presentations can be used most effectively at the national convention and also promoted to State Affiliates for their conferences (pp. 53-56).

Heller (1983) in her study compared and evaluated media education curriculum to competencies perceived by media professionals as necessary to fulfill the role of a media specialist in forty-two institutions in higher education in Oklahoma. She constructed a questionnaire which was a revised format of the "Evaluative Checklist: An Instrument for Self-Evaluating and Educational Media Programs in School Systems" (Fulton et al., 1979). She distributed it to the media professionals in those institutions. Among her conclusions were:

> 1. Curriculum of media education professional preparation programs were generally perceived as neither weak nor strong in selected competency areas.
>
> 2. The compatibility of the curriculm to perceived competencies appeared to have nothing to do with the size of the college or university (p. 149).

Heller made the following recommendations:

> 1. A periodic self-evaluation of media education professional preparation programs should be provided on a planned basis at all colleges and universities.
>
> 2. Media professionals of media education professional preparation programs should meet periodically to discuss competencies necessary to fulfill the role of a media specialist.
>
> 3. Consideration should be given to establishing a universal set for media specialists (p. 150).

She also recommended further research to be done to develop more efficient programs.

In conclusion to this chapter, the researcher feels that the availability of equipment and instructional materials does not guarantee offering the best media services. Faculty, students, directors and

staff are those who make the difference. In this respect, it is interesting to quote what Anandam and Kelly (1981) stated,

> Even though media and technology enthusiasts oversell their products, the capabilities of technology will not in and of themselves create or even prompt changes in our educational activities. It is the people who are going to make a difference (p. 128).

So interest and enthusiasm on the part of the users of media and media people is indispensable to achieve successful media service.

Further evaluation tools are essential to evaluate media programs in order to reveal its effectiveness. Quantitative evaluation, though it is more common, does not measure the quality. Quality of the media program should be measured too. The available instrument that the researcher used in this study was a self-evaluative checklist by Fulton et al. (1979).

Summary

The purpose of this chapter was to report a review of the literature related to this study. The review of the literature was divided into six areas: 1) some observations of American history of media in education, 2) historical background of media centers in American universities and colleges, 3) a review of the Jordanian history of media in education including higher education, 4) a review of media center services in advanced and developing countries, 5) integration of media centers and libraries in higher education, and 6) a review of the related research studies.

This chapter encompassed many quotations from the findings and recommendations of the studies conducted on evaluating media services programs in higher education for their significance and relevance to this study.

CHAPTER III

METHOD AND PROCEDURE

The purpose of this study was to compare university media center services of two universities in Jordan as a developing country and one American university in the United States as a developed country. This chapter includes the following sections: 1) type of research, 2) the population, 3) the instruments, 4) the procedures for collecting data, and 5) the procedures for analyzing the data.

Type of Research

The researcher used the descriptive method of research for two main reasons. First, only three universities were involved in the study and the number of subjects to be surveyed was relatively small. Second, the researcher wanted to know "what is the present" level of educational services offered by the media centers of the two major Jordanian universities to faculty, students and the community. Also the researcher wanted to compare services offered by a similar center of a U.S. university. The comparison would encompass differences existing in staffing, locations of centers, media services, what problems each center faced, and the future plans of each center. The researcher also wanted to develop a body of knowledge of the educational media services offered by a media center in the United States against which the services of the media centers of the Jordanian universities may be compared.

Heller (1983) stated:

> Descriptive studies serve several important functions in education. In new sciences the body of knowledge is relatively small and conflicting claims and theories can be confusing. Under these conditions, it is often of great value to know the current state of the science. Descriptive research provides a starting point for further studies (p. 44).

A high percentage of studies are descriptive in nature as Gay (1976) emphasized. It is an appropriate technique for investigating a variety of educational problems. Nevertheless, descriptive studies limit generalizations. According to Best (1981),

> Descriptive statistical analysis limits generalization to the particular group of individuals observed. No conclusions are extended beyond this group and any similarity to those outside the group can't be assumed (p. 221).

Population

Because of the relatively small number of the subjects involved, the researcher surveyed the entire staff population of the three universities. This population consisted of the following: three directors and fifty-four staff members of The Educational Technology Center at the University of Jordan, Educational Research and Development Center at Yarmuk University in Jordan, and Audiovisual Center at Oklahoma State University in the United States of America. Table I shows the number of participants in each center.

TABLE VI

NUMBER OF DIRECTORS AND STAFF MEMBERS AT EACH CENTER INVOLVED IN THE STUDY

Type of Participant	Educational Technology Center at the University of Jordan	Research and Development Center at Yarmuk University/Jordan	Audio-Visual Center at Oklahoma State University/USA
	Number	Number	Number
Director	1	1	1
Staff Members	14	10	30
Total	15	11	31

Instrument

The instruments used in this study were as follows:

A Questionnaire Survey of Two Forms

Evaluative Checklist (Appendix B)

This instrument is for self-evaluating an educational media program in colleges and universities and was developed by Fulton, King, Teague,and Tipling (1980c). They stated in the introduction to the Checklist:

> The Evaluative Checklist was validated and field-tested through an extensive research project. Research has shown that when properly applied to a higher educational institution, it will discriminate among the varying levels of quality in educational media programs.
>
> This Evaluative Checklist is based on research that indicates that these are fundamental elements of an educational media program which if present in sufficient quantity and quality will facilitate the improvement of instruction. The elements contained in this checklist are assumed to be common to most educational media programs (p. 1).

Each "Evaluative Checklist" consists of six sections. These sections include: 1) administrative commitment to educational media services, 2) media services, 3) media services center, 4) facilities, 5) budget and finance, and 6) media staff. Each section is preceded by a brief statement of pertinent criteria selected from the Criteria Relating to Educational Media Programs in Colleges and Universities developed by Fulton, King, Teague and Tipling (1980) (Appendix A). Each section also consists of several items and each item consists of descriptions of an aspect of media services programs operating at four levels of media program adequacy. Four descriptions were given to each item: optimal, functional, minimal and inadequate.

By using the "Evaluative Checklist", every participant has the opportunity to evaluate the media services program at one of the four levels of adequacy for each item. The respondent selects the description that best describes each item of his program and then judges whether that item of his program is optimal, functional, minimal or inadequate according to the criteria.

Preference Checklist (Appendix C)

The "Preference Checklist" developed by King and Lowden (1980) includes the same items as the "Evaluative Checklist." The purpose of this checklist is to obtain participants' preferences for an instructional media center program at their university. The "Preference Checklist" is based on the Criteria Relating to Educational Media Programs in Colleges and Universities (Appendix A) developed by Fulton, King, Teague, and Tipling (1980). The instrument was further revised

by making the terminology compatible with that used in colleges and universities.

Each Preference Checklist also consists of six sections. These sections include: 1) administrative commitment to educational media services, 2) media services, 3) media services center, 4) facilities, 5) budget and finance, and 6) media staff. Each section also consists of some items and each item includes descriptions of an aspect of media services programs operating at four levels of media program adequacy. Four descriptions were given to each item: optimal, functional, minimal and inadequate.

"Inadequate" indicates that the participant who selects this level wants that segment of his media program to be undeveloped according to the criteria developed by Fulton et al. (1980a). "Minimal" indicates that this segment of the participant's media program should offer minimum services. "Functional" indicates that the participant who selects this level wants that segment of his program to be at least functional. He who selects "optimal" is considered to have the desire for that segment of his media program to be at an optimal level.

Translation

Both of the checklists "Evaluative Checklist" and "Preference Checklist" were translated by the researcher into the Arabic language. The translation was reviewed and revised by three professors at the Yarmuk University in Jordan who were in command of Arabic and English languages. The revised translation was typed and photocopied at the Yarmuk University in Jordan.

On-Site Visits and Interviews

Personal visits by the researcher were made to each of the three media centers involved in the study. The researcher made two on-site visits to the Educational Technology Center at the University of Jordan in summer, 1984 and two other on-site visits to the same center in January, 1985. The researcher made three on-site visits to the Educational Research and Development Center at the Yarmuk University in summer, 1984, and two more visits in December and January, 1984, 1985 respectively. The researcher also made a visit to the College of Educational Media Center at the University of Jordan in Summer, 1984 and another similar on-site visit to the Media Center at the Department of Education at Yarmuk University. The researcher also made four on-site visits to the Audio Visual Center at Oklahoma State University in January, 1985.

During these visits, the researcher conducted interviews with the director of each center. The interviews were held in English and were taped at the request of the writer.

The purpose of those visits and interviews was to gather more data and information other than that supplied by the questionnaires, for example, the number of each media center staff, their qualifications, the quantity and quality of equipment, the number of users of each center and to observe and obtain any other information available about each center.

The researcher determined that a final important means of investigating the services in greater depth could be provided by interviews with the directors of the three media centers. Their

comments could provide insight into the relation of services to goals, their professional reactions to the services rendered, and into practical techniques for implementing changes.

Procedures for Collecting Data

The "Evaluative Checklist" and the "Preference Checklist" were distributed to media staff personnel by the researcher personally. An accompanying cover letter was also given to the Jordanian directors of media centers involved in the study (Appendix H). The director of the Audiovisual Center at Oklahoma State University was contacted by Professor G. Post and informed about the mission of the researcher.

All the survey participants were given the following four things: 1) criteria summary for media center programs, 2) a self-evaluative checklist, 3) a preference checklist, 4) instructions (oral and written) on how to respond to the questionnaires. The Audiovisual Center director at Oklahoma State University assumed responsibility of giving the necessary instructions to his staff for completing the questionnaires.

Because Jordanian staff members were unfamiliar with the questionnaire technique the researcher explained the directions for completing the questionnaire three times.

All survey participants evaluated and indicated their preference of the following media center areas: 1) administrative commitment, 2) media services, 3) media service center, 4) physical facilities, 5) budget and finance, and 6) professional media staff.

As mentioned earlier in this chapter, the researcher determined that conducting interviews with the directors of the three media centers

was an important means of investigating the services rendered by each center in greater depth. The directors' comments revealed the relationship between services, goals and plans for future change. After an appointment was set up with each director the writer provided the directors with the questions prior to conducting the interview. The interview questions were included in Appendix E. The researcher asked about thirty questions during each interview. Each interview was recorded on an audio-tape. The purpose of the interviews was to gather additional data beyond the scope of the instruments such as the size of the staff, their qualifications, the quality and quantity of available equipment, information about cooperation and coordination between each center and any other center, special problems each center faced, and the future plans for each center. On-site visits were also intended to obtain inventories, guidebooks and to personally observe the nature of activities as they were being carried out.

Procedures for Analyzing the Data

Data were presented in tables, frequency charts, percentages and rank order. Evaluation and preference for each of the twenty-two items of the respondents of each media center were presented by frequency tables.

Tables were used to show comparison of the three media centers involved in the study. A tables were used to show frequency distribution of the evaluation of the staffs of the three media centers. Other tables were also used to display the frequency distribution of the preferences of the staffs of the three media centers. The data used to make the tables were based on the median responses for each item.

Interpretations and analysis were made of the data collected from the two survey questionnaires, the interviews with directors, and inventories and statistics obtained from the three media centers. Conclusions were also drawn from the data presented.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This chapter is an analysis and evaluation of the data related to media center services programs at the three universities involved in this study. The data were obtained from the responses (Table VII) made by the media staff members, to two forms of questionnaire: 1) the "Evaluative Checklist" (Appendix B), and 2) the "Preference Checklist" (Appendix C). The "Evaluative Checklist" and the "Preference Checklist" each consisted to six major sections: 1) administrative commitment to educational media services, 2) media services, 3) media services center, 4) facilities, 5) budget and finance, and 6) media staff. The six sections consisted to twenty-two items. Each participant evaluated and expressed his preference for each service item of his media program at one of four operating levels of adequacy : 1) optimal, 2) functional, 3) minimal, and 4) inadequate. The data were presented in tables to show comparison of the evaluation and preferences of the staffs of the three centers involved in this study.

The following abbreviations are used in this chapter.

YU = The Educational Research and Development Center at Yarmuk University of which the Educational Technology unit is a constituent part.

UJ = The Educational Technology Center at the University of Jordan.

OSU = The Audio Visual Center at Oklahoma State University.

TABLE VII

NUMBER AND PERCENTAGE OF THE POPULATION RESPONDING TO THE EVALUATIVE AND PREFERENCE CHECKLISTS

Name of Center	Number in Population	Number of Responses	Percent Responding
YU	11	7	33.3
UJ	15	5	63.6
OSU	31	14	45.2

Survey of Evaluation for University Educational Media Services Program

The "Evaluative Checklist" (Appendix B) is similar to the "Preference Checklist" (Appendix C) in that it was based on criteria developed by Fulton, King, Teague and Tipling (1980a) (Appendix A). The "Evaluative Checklist" obtained judgmental responses from the participants for their media programs at four levels of the media program adequacy: optimal, functional, minimal and inadequate.

Evaluative Checklist: Section I, Administrative Commitment

Section I items A, B, C, D, and E of the "Evaluative Checklist" obtained judgmental responses regarding the university's administrative commitment to educational media as an integral part of instruction, to providing educational media facilities, and to financing and staffing the media program. Criteria used as a basis for judgment was provided in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table VII illustrates the distribution of ratings given by respondents who judged the "Evaluative Checklist" responses at four levels of adequacy: optimal, functional, minimal or inadequate.

I-A: Administrative Commitment, Data

YU. Table VIII indicates that 42.8 percent of the media staff at YU judged their program as being in the optimal level of adequacy; 14.3 percent felt that their program was at the minimal level of adequacy and 28.6 percent rated it as being inadequate. None of the participants judged their program at the functional level, while 14.3 percent of the participants gave no response to this item.

UJ. Table VIII indicates that 20 percent of the UJ media staff rated their program as being optimal; 40 percent judged it as being functional, while 20 percent regarded their program as being inadequate.

TABLE VIII

PERCENTAGES OF RESPONDENTS WHO EVALUATED SECTION I (ADMINISTRATIVE COMMITMENT) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Commitment to the Media Program	YU	42.8	0	14.3	28.6	14.3
		UJ	20	40	20	20	0
		OSU	71.4	28.6	0	0	0
B	Commitment to Educational Media as an Integral Part of Instruction	YU	42.85	42.85	14.30	0	0
		UJ	20	0	40	40	0
		OSU	35.7	64.3	0	0	0
C	Commitment to Providing Educational Media Facilities	YU	42.8	14.3	14.3	28.6	0
		UJ	40	20	40	0	0
		OSU	7.1	50	42.9	0	0
D	Commitment to Financing the Educational Media Program	YU	14.30	42.85	0	42.85	0
		UJ	20	0	40	40	0
		OSU	0	64.3	21.4	0	14.3
E	Commitment to Staffing the Educational Media Program	YU	14.3	57.1	28.6	0	0
		UJ	40	40	0	20	0
		OSU	71.40	14.30	7.15	0	7.15

Source: Evaluative Checklist, Section 1

OSU. Table VIII indicates that 71.4 percent of OSU media staff rated their program at the optimal level, while 28.6 percent regarded their program as being at the functional level.

I-A: Evaluation

YU. The data indicated that 42.8 percent of YU media staff believed their program to be strong in terms of commitment to their educational media services program; 14.3 percent of the staff surveyed believed their program was neither weak nor strong, while 28.6 percent believed their program was weak in this area.

UJ. The data indicated that 20 percent of the UJ staff believed their program was strong in commitment to the university educational media services; 60 percent believed their program was neither weak nor strong, while 20 percent believed their program was weak in this area.

OSU. The data indicated 71.4 percent of OSU media staff believed their program was strong, while 28.6 percent believed their program was neither weak nor strong in terms of commitment to the university educational media services.

I-B: Commitment to Educational Media as an Integral Part of Instruction, Data

YU. Table VIII indicates that 42.8 percent of YU media staff judged their program as being at the optimal level of adequacy; 42.8

percent regarded their program as being at the functional level, while 14.3 percent felt their program was in the minimal level of adequacy.

UJ. Table VIII indicates that 20 percent of UJ staff rated their program as being at the optimal level of adequacy; 40 percent judged their program as being at the minimal level, while the other 40 percent felt that their program was at the inadequate level in terms of commitment to the educational media as an integral part of instruction.

OSU. Table VIII indicates that 35.7 percent felt that their program was at the optimal level, while 64.3 percent regarded it as being at the functional level.

I-B: Evaluation

YU. The data indicated that 42.8 percent of YU media staff believed their program was strong in commitment to educational media as an integral part of instruction, while57.17 percent believed it was neither weak nor strong.

UJ. The data indicated that only 20 percent of UJ media staff believed their program was strongly committed to educational media as an integral part of instruction, 80 percent believed their program was weak in this area.

OSU. The data indicated that 35.7 percent of OSU media staff believed their program was strong, while 64.3 percent felt it was neither strong nor weak in terms of commitment to educational media as an integral part of instruction.

I-C: Commitment to Providing Educational Media Facilities, Data

YU. Table VIII indicates that 42.8 percent of YU media staff felt their program was at the optimal level of adequacy; 14.3 percent rated it at the functional level; 14.3 percent judged it as being at the minimal level, while 28.6 percent felt their program was at the inadequate level of adequacy.

UJ. Table VIII shows that 40 percent of UJ media staff regarded their program operating at an optimal level; 20 percent felt it was at a functional level while 40 percent judged it as being at a minimal level.

OSU. Table VIII indicates that only 7.1 percent of OSU media staff rated their program at the optimal level regarding commitment to providing educational media facilities; 50 percent felt their program was at the functional level, while 42.9 percent of the staff surveyed regarded it at a minimal level of adequacy.

I-C: Evaluation

YU. Data collected indicated that 42.8 percent of the surveyed YU media staff believed their program was strong in commitment to providing educational media facilities; 28.6 percent thought their program was neither weak nor strong, while 28.6 percent felt their program was weak in this area.

UJ. The data indicated that 40 percent believed their program was strong in commitment to providing educational media facilities, while the other 60 percent believed their program was neither strong nor weak in this area.

OSU. The data indicated that only 7.1 percent of OSU media staff believed their program was strongly committed to providing educational media facilities, while the other 92.9 percent believed it was neither strong nor weak.

I-D: Commitment to Financing the Eduational Media Program, Data

YU. Table VIII indicates that only 14.3 percent of YU media staff regarded the program as being at the optimal level of adequacy; 42.85 percent felt that there was commitment to financing the educational media program, while 42.85 percent judged it as being at the inadequate level.

UJ. Table VIII indicates that 20 percent of UJ media staff felt that their program was operating at the optimal level of adequacy; 40 percent felt that the program received the minimal level of commitment to financing the educational media, while 40 percent judged the administration commitment to financing the educational media program as being at the inadequate level of adequacy.

OSU. Table VIII shows that none of OSU respondents rated the university administration commitment to financing the educational media

program at an optimal level of adequacy, 64.3 percent of OSU respondents felt that this commitment was at a functional level, while 21.4 percent regarded it as being at a minimal level; 14.3 percent gave no response.

I-D: Evaluation

YU. The data collected indicated that 14.3 percent of YU media staff believed their program to be strong in the commitment of the university administration to financing the educational media, 42.8 percent believed it was neither weak nor strong, while 42.85 percent felt it was weak in this area.

UJ. The data collected showed that 20 percent of UJ media staff believed their program to be strong in terms of the institution's commitment to financing the educational media program, 40 percent believed it was neither strong nor weak, while 20 percent believed it was weak in this area.

OSU. The data indicated that none of OSU media staff believed their program was strong regarding the institution's commitment to financing the educational media program, while 85.7 percent believed it was neither strong nor weak. No response was given by 14.3 percent of the staff regarding the evaluation of this item.

I-E: Commitment to Staffing Educational Media Program, Data

YU. Table VIII indicates that 14.3 percent of the surveyed YU media staff rated their program at an optimal level of adequacy in terms of the university's commitment to staffing the educational media program, 57.1 percent felt their program was at a functional level,

while 28.6 percent regarded it as being at the minimal level of adequacy.

UJ. Table VIII shows that 40 percent of the surveyed UJ media staff rated their program at an optimal level regarding the university's administrative commitment to staffing the media program, 40 percent felt it was at a functional level, while 20 percent rated this item of their media program as being inadequate.

OSU. Table VIII shows that 71.4 percent of the surveyed OSU media staff regarded this item of their program as being at an optimal level, 14.3 percent felt it was at the functional level, while 7.15 felt it was at the minimal level. No response was given by 7.15 percent of the OSU participants regarding this item.

I-E: Evaluation

YU. The data collected indicated that 14.3 percent of YU media staff believed their program was strong regarding the university's administrative commitment to staffing the educational media program, while the other 85.7 percent believed this area in their program was neither weak nor strong.

UJ. The data indicated that 40 percent of UJ media staff believed their program was strong in terms of the institution's administrative commitment to staffing their media program, 40 percent believed it was neither strong nor weak, while 20 percent believed it was weak in this area.

OSU. The data showed that 71.40 percent of OSU media staff believed their program was strong regarding the university's administrative commitment to staffing the educational media program, while 21.45 percent believed it was neither strong nor weak. No response was given by 7.15 percent of the respondents regarding this item.

Evaluative Checklist: Section II, Curriculum and Instruction

Section II, items A, B, C, and D of the "Evaluative Checklist" obtained judgmental responses pertaining to consultative services in educational media utilization, inservice education, utilization of media and involvement of the media staff in planning with faculty and staff for effective use of media. Judgement was based on criteria included in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table XIV showed the percentages of respondents' judgments regarding this section at four levels of program adequacy: optimal, functional, minimal and inadequate.

II-A: Consultative Services in Educational Media Utilization, Data

YU. Table IX shows that only 14.3 percent of YU media staff rated their program at an optimal level regarding the consultative services rendered by the university media services program to the faculty, staff, and students; 42.85 percent felt their program was operating at a functional level in this area while the other 42.85 percent rated it at a minimal level.

TABLE IX

PERCENTAGES OF RESPONDENTS WHO EVALUATED SECTION II (CURRICULUM AND INSTRUCTION) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Consultative Services in Educational Media Utilization	YU	14.30	42.85	42.85	0	0
		UJ	0	0	40	20	40
		OSU	21.4	64.3	14.3	0	0
B	Inservice Education in Educational Media Utilization	YU	14.3	14.3	28.6	42.8	0
		UJ	20	0	40	40	0
		OSU	28.6	42.8	14.3	0	14.3
C	Utilization of Educational Media	YU	28.6	28.6	42.8	0	0
		UJ	0	20	20	40	20
		OSU	21.43	71.43	7.14	0	0
D	Involvement of Media Staff in Planning	YU	28.6	42.8	14.3	14.3	0
		UJ	0	40	40	20	0
		OSU	7.1	64.3	28.6	0	0

Source: Evaluative Checklist, Section II

UJ. Table IX indicates that none of the UJ media staff rated their media program at the optimal and functional levels; 40 percent judged it as being at the minimal level and 20 percent felt their program was inadequate regarding rendering consultative services to the faculty, staff and students. No response was given by 40 percent of the respondents regarding this area.

OSU. Table IX indicates that 21.4 percent of OSU media staff rated their program at an optimal level; 64.3 percent felt that their program rendered consultative services in educational media utilization at a functional level, while 14.3 percent felt it was operating at the minimal level in this area.

II-A: Evaluation

YU. The data collected indicated that only 14.3 percent of the YU media staff believed their program was strong regarding rendering consultative services in educational media utilization, while the other 85.7 percent believed their program was neither strong nor weak in this area.

UJ. The data indicated that 40 percent of UJ media staff believed their program was neither weak nor strong regarding rendering consultative services in educational media utilization; 20 percent believed their program was weak, while no response was given by 40 percent of the respondents regarding this item of the media program.

OSU. The data indicated that 21.4 percent of OSU media staff believed their program was strong in terms of rendering consultative services in educational media utilization. The other 78.6 percent

believed their program was neither weak nor strong in this area of services.

II-B: Inservice Education in Educational Media Utilization, Data

YU. Table IX indicates that 14.3 percent of YU media staff rated their program at the optimal level regarding the activities rendered by the media personnel in inservice education in media utilization; 14.3 percent felt it was operating at the functional level; 28.6 percent regarded it as being at the minimal level, while 42.8 percent judged it as being at an inadequate level in this area of service.

UJ. Table IX indicates that 20 percent of the UJ media staff felt their media program was operating at the optimal level regarding rendering inservice education in educational media utilization to faculty, staff and students; 40 percent felt it was at the minimal level and 40 percent felt it was operating at an inadequate level in this area.

OSU. Table IX shows that 28.6 percent of OSU media staff rated their media program at the optimal level regarding rendering inservice education to the faculty, staff and students in educational media utilization; 42.8 percent judged its level as being functional, and 14.3 percent rated it at the minimal level. No response was given by 14.3 percent of the respondents to this item of the media program.

II-B: Evaluation

YU. The data collected indicated that only 14.3 percent of the YU media staff believed their media program was strong in the area of

rendering inservice education to the faculty, staff, and students in educational media utilization; 42.85 percent believed this service rendered by the media personnel was neither strong nor weak, while 42.85 percent believed it was weak in this area.

UJ. The data indicated that 20 percent of the UJ media staff believed their program was strong in the area of rendering inservice education in educational media utilization to the faculty, staff and students, 40 percent believed it was neither strong nor weak, while the other 40 percent felt it was weak in this area of service.

OSU. The data indicated that 28.6 percent thought their media program was strong in rendering inservice education in educational media utilization; 57.1 percent believed their program was neither strong nor weak. No response was given by 14.3 percent of the respondents to this item of the quationnaire.

II-C: Utilization of Media, Data

YU. Table IX indicates that 28.6 percent of YU media staff felt their program was at the optimal level regarding the utilization of educational media by faculty, staff and students; 28.6 percent rated it at the functional level while 42.8 percent felt it was at the minimal level of adequacy.

UJ. Table IX shows that 20 percent of the UJ media staff felt their program was at the functional level regarding the utilization of educational media by the faculty, staff and students, 20 percent rated it as being at the minimal level, while 40 percent judged it as being at

the inadequate level. No response was given by 20 percent of the respondents to this item.

OSU. Table IX indicates that 7.1 percent of OSU participants felt that their program was at the optimal level; 64.3 percent rated it at the functional level while 28.6 percent judged it as being at the minimal level regarding utilization of educational media by faculty, staff and students.

II-C: Evaluation

YU. The data indicated that 28.6 percent of the YU media staff believed their media program was strong in the area of utilization of media by the faculty, staff, and students; 71.4 percent believed their program was neither weak nor strong in this area of services.

UJ. The data indicated that none of UJ respondents believed that their program was strong in utilization of media by faculty, staff and students, 40 percent believed their program was neither strong nor weak in this area of services. No response was given by 20 percent of respondents to this item; 40 percent believed it was weak.

OSU. The data indicated that 21.4 percent of OSU media staff believed their program was strong in utilization of media by faculty, staff, and students, while the other 78.6 percent believed it was neither strong nor weak in this area of services.

II-D: Involvement of Media Staff in Planning, Data

YU. Table IX indicates that 28.6 percent of the media staff felt their program was at the optimal level regarding the involvement of the

media staff in planning for the use of media; 42.8 percent rated their program at the functional level; 14.3 percent judged it as being operated at the minimal level, while 14.3 percent felt it was at the inadequate level.

UJ. Table IX shows that 40 percent rated their program at the functional level regarding involvement of media staff with faculty, staff and students in planning for the use of media; 40 percent regarded it as functioning at the minimal level while the other 20 percent felt their program was inadequate regarding this area of services.

OSU. Table XI shows that 7.1 percent of the OSU media staff rated their program at the optimal level regarding involvement of media staff with faculty, staff and students in planning for the use of media; 64.3 percent felt their program was at the functional level, while the other 28.6 percent felt it was at the minimal level regarding this area of the media program.

II-D: Evaluation

YU. The data collected indicated that 28.6 percent of the YU media staff believed their program was strong regarding involvement of the media staff with faculty, staff and students in planning for the use of media; 57.1 percent believed their program was neither weak nor strong while the other 14.3 percent believed it was weak in this area of services.

UJ. The data collected indicated that 80 percent of the UJ participants believed their program was neither weak nor strong in terms of involvement of the media staff with faculty, staff and students in

planning for the use of media, while the other 20 percent believed their program was weak in this area.

OSU. The data indicated that 7.1 percent of OSU media staff believed their program was strong in terms of involvement of the media staff in planning for the use of media, while the other 92.9 percent believed their program was neither weak nor strong.

Evaluative Checklist: Section III, The Educational Media Services Center

Section III, items A, B, C, D, E, and F of the "Evaluative Checklist" obtained judgmental responses relating to location and accessibility of educational media, dissemination of media information, availability, storage, retrieval and maintenance of educational media. The respondent's judgments were based on the criterion inlcluded in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table X indicated the percentages of the respondent's judgement regarding each item of this section at four levels of the media program adequacy: optimal, functional, minimal and inadequate.

III-A: Location and Accessibility of Educational Media, Data

YU. Table X indicates that 28.57 percent of the YU media staff regarded their program as being at the optimal level in terms of the location of the media center and accessibility to all faculty, staff and stduents; 14.29 percent rated their program at the functional level; 14.29 percent felt it was at the minimal, while 28.57 percent felt it was at the inadequate level in this area.

TABLE X

PERCENTAGES OF RESPONDENTS WHO EVALUATED SECTION III (THE EDUCATIONAL MEDIA SERVICES CENTER) OF THEIR MEDIA PROGRAM

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Location and Accessibility of Educational Media	YU	28.57	14.29	14.29	28.57	14.28
		UJ	0	20	60	20	0
		OSU	64.3	21.4	14.3	0	0
B	Dissemination of Media Information	YU	28.6	71.4	0	0	0
		UJ	20	20	0	60	0
		OSU	21.40	71.46	0	7.14	0
C	Availiability of Educational Media	YU	57.14	42.86	0	0	0
		UJ	0	0	20	80	0
		OSU	21.42	57.14	14.30	7.14	0
D	Storage and Retrieval of Media	YU	28.57	14.29	28.57	28.57	0
		UJ	0	0	40	20	40
		OSU	14.3	57.1	28.6	0	0
E	Maintenance of Media	YU	42.8	28.6	0	28.6	0
		UJ	0	0	0	40	60
		OSU	64.30	21.42	7.14	0	7.14
F	Production of Media	YU	14.3	57.1	14.3	14.3	0
		UJ	0	0	20	60	20
		OSU	21.43	42.86	35.71	0	0

Source; Evaluative Checklist, Section III

UJ. Table X indicates that 20 percent of the UJ media staff rated their program at the functional level regarding the location of the media and the accessibility of the educational media center to all faculty, staff and students; 60 percent felt it was at the minimal level, while 20 percent regarded it at the inadequate level of adequacy in this area.

OSU. Table X indicates that 64.3 percent of OSU media staff rated their program at the optimal level regarding the location of the primary media center and the accessibility of all educational media to all faculty, staff and students; 21.4 percent felt it was at the functional level, while 14.3 percent felt it was at the minimal level in this area.

III-A: Evaluation

YU. The data collected indicated that 28.6 percent of the YU media staff believed their program was strong in terms of the location of the primary center and the accessibility of the educational media to all faculty, staff and students; 28.6 percent believed it was neither weak nor strong, while 28.6 percent believed it was weak in this area. No response was given to this item by 14.3 percent.

UJ. The data showed that 80 percent of the UJ media staff believed their program was neither weak nor strong in terms of the location of the media center and accessibility of educational media to all faculty, staff and students, while 20 percent believed it was weak in this area.

OSU. The data indicated that 64.3 percent of OSU media staff believed their program was strong regarding the location of the primary media center and accessibility of educational media to all faculty, staff

and students, while the other 35.7 percent believed it was neither weak nor strong in this area.

III-B: Dissemination of Media Information, Data

YU. Table X indicates that 28.6 percent of the YU media staff judged the dissemination of media information in their program as being at the optimal level, while the other 71.4 percent rated it at the functional level.

UJ. Table X shows that 20 percent felt that dissemination of media information in their program was at the optimal level; 20 percent felt it was at the functional level and 60 percent rated it as being inadequate.

OSU. Table X indicates that 21.40 percent of OSU media staff felt dissemination of media information was at the optimal level; 71.46 percent felt it was at the functional level and 7.14 percent felt it was inadequate in this area.

III-B: Evaluation

YU. The data indicated that 28.6 percent of YU media staff believed their program was strong in the area of disseminating media information and the other 71.4 percent believed their program was neither strong nor weak.

UJ. The data indicated that 20 percent of the UJ media staff believed their program was strong in disseminating media information; 20 percent believed it was neither strong nor weak and the other 60 percent believed it was weak in this area of services.

OSU. The data indicated that 21.40 percent of OSU media staff believed their program was strong in disseminating media information; 71.46 percent believed it was neither strong nor weak and 7.14 percent believed it was weak.

III-C: Availability of Educational Media, Data

YU. Table X indicates that 57.14 of the surveyed YU media staff felt their program was at the optimal level in terms of the availability of educational media and their distribution and delivery system, while the other 42.86 percent rated it at the functional level.

UJ. Table X shows that 20 percent of the participants of UJ media staff judged their program as being at the minimal level in terms of availability and distribution system of educational media, while 80 percent felt it was at an inadequate level in this area.

OSU. Table X indicates that 21.42 percent of the participants of OSU media staff felt their program was at the optimal level regarding availability and distribution of educational media; 57.30 percent judged it as being functional; 14.30 percent rated it as being minimal while 7.14 percent perceived it as inadequate in this area.

III-C: Evaluation

YU. The data collected indicated that 57.14 percent of the participants of YU media staff believed their program was strong in terms of availability and distribution system of educational media while 42.86 percent believed it was neither strong nor weak.

UJ. The data indicated that 20 percent of the UJ media staff believed their program was neither weak nor strong regarding availability and distribution of educational media, while the other 80 percent believed it was weak in this area.

OSU. The data showed that 21.42 percent of the participants of OSU media staff believed their program was strong in terms of availability and distribution of educational media; 71.40 percent believed it was neither strong nor weak while 7.14 percent believed it was weak.

III-D: Storage and Retrieval of Media, Data

YU. Table X indicates that 28.57 percent of the participants of YU media staff felt their program was optimal in terms of storage and retrieval of media; 14.29 percent rated it as being functional; 28.57 judged it as being minimal and 28.57 felt it was inadequate in this area of service.

UJ. Table X indicates that 40 percent of the UJ participants felt their program was at the minimal level regarding storage and retrieval of media; 20 percent felt it was inadequate in this area. No response was given to this item by 40 percent of the participants.

OSU. Table X shows that 14.3 percent of the OSU participants felt their program was optimal in terms of storage and retrieval of educational media; 57.1 percent rated it as being functional while 28.6 percent felt it was minimal in this area of services.

III-D: Evaluation

YU. The data collected indicated that 28.57 percent of the YU participants believed their program was strong regarding storage and retrieval of media; 42.76 percent believed it was neither weak nor strong while 28.57 believed it was weak in this area.

UJ. The data indicated that 40 percent of the UJ participants believed their program was neither strong nor weak in the area of storage and retrieval of educational media. No response was given to this item by 40 percent of the participants; 20 percent felt it was weak.

OSU. The data indicated that 14.3 percent of the OSU participants believed their program was strong in terms of storage and retrieval of media while the other 85.7 percent believed their program was neither strong nor weak.

III-E: Maintenance of Media, Data

YU. Table X indicates that 42.8 percent of the YU participants rated their program as being optimal in terms of maintenance of the educational media, 28.6 felt it was functional while the other 28.6 percent felt it was inadequate in this area of service.

UJ. Table X indicates that 40 percent of the UJ participants rated their program as being inadequate in terms of maintenance of educational media while the other 60 percent did not respond to this item.

OSU. Table X shows that 64.30 percent of the OSU participants regarded their program as being optimal in terms of maintenance of

educational media; 21.42 percent felt it was functional and 7.14 percent rated it as being minimal in this area; 7.14 percent of the participants did not respond to this item.

III-E: Evaluation

YU. The data collected indicated that 42.8 percent of the YU participants believed their program was strong regarding maintenance of educational media; 28.6 percent believed it was neither strong nor weak, while 28.6 percent believed their program was weak in this area of services.

UJ. The data indicated that none of the UJ participants believed their program was neither strong nor weak in the area of maintenance; 40 percent believed it was weak in the area of maintenance while 60 percent of the participants did not respond to this item.

OSU. The data indicated that 64.30 percent of the OSU participants believed their program was strong regarding maintenance of educational media; 28.56 percent believed it was neither strong nor weak while 7.14 percent of the participants did not respond to this item.

III-F: Production of Media, Data

YU. Table X indicates that 14.3 percent of the YU participants felt their program was at the optimal level in terms of production of educational media, 57.1 percent rated it at the functional level, 14.3 percent judged it as being minimal and 14.3 percent felt it was inadequate in this area of service.

UJ. Table X shows that 20 percent of the UJ participants felt their program was minimal regarding production of media and 60 percent rated it as being inadequate, 20 percent did not respond to this item.

OSU. Table X shows that 21.43 percent of the OSU participants rated their program at the optimal level; 42.86 percent felt it was functional and 35.71 percent felt it was at the minimal level in terms of production of educational media.

III-F: Evaluation

YU. The data collected indicated that 14.3 percent of the YU participants believed their program was strong in terms of production of educational media and 71.4 percent believed it was neither strong nor weak; 14.3 percent felt their program was weak.

UJ. The data indicated that 20 percent of the UJ participants believed their program was neither weak nor strong regarding production of media and 60 percent felt it was weak in this area; 20 percent did not respond to this item.

OSU. The data indicated that 21.43 percent of the OSU participants believed their program was strong in the area of production of educational media while the other 78.57 percent perceived it as being neither strong nor weak in this area of service.

Evaluative Checklist: Section IV, Physical Facilities for Educational Media

Section IV, items A and B on the "Evaluative Checklist" obtained judgmental responses relating to physical facilities in existing and

new classrooms at each institution involved in the study. The participant's judgment was based on the criteria included in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table XI showed responses of the participants to each item of this section in percentage at four levels of the media program adequacy: optimal, functional, minimal and inadequate.

IV-A: Physical Facilities in Existing Classrooms, Data

YU. Table XI shows that 14.3 percent of the YU participants felt the physical facilities in existing classrooms at the Yarmuk University were at the optimal level; 14.3 percent felt existing facilities were at the functional level; 42.85 percent felt they were at the minimal level regarding the physical facilities in existing classrooms, while 28.6 percent felt they were inadequate to accommodate effective use of educational media.

UJ. Table XI indicates that 20 percent felt the physical facilities in existing classrooms were functional to accommodate optimum use of all types of educational media; 40 percent rated the physical facilities in existing classrooms as being at the minimal level to accommodate effective use of educational media and the other 40 percent felt the physical facilities in existing classrooms were inadequate to accommodate effective use of educational media and equipment of all types.

TABLE XI

PERCENTAGES OF RESPONDENTS WHO EVALUATED SECTION IV (PHYSICAL FACILITIES FOR EDUCATIONAL MEDIA) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Physical Facilities in Existing Classrooms	YU	14.3	14.3	42.8	28.6	0
		UJ	0	20	40	40	0
		OSU	0	42.86	50	0	7.14
B	Physical Facilities in New Classrooms	YU	14.3	28.6	42.8	14.3	0
		UJ	20	0	40	40	0
		OSU	7.14	35.72	57.14	0	0

Source: Evaluative Checklist, Section IV

OSU. Table XI indicates that 42.86 percent of the OSU participants felt the physical facilities in existing classrooms at Oklahoma State University were at the functional level which meant that most classrooms were at least partially equipped for the use of educational media; 50 percent felt these facilities were at the minimal level to accommodate effective use of media; 7.14 did not respond to this item.

IV-A: Evaluation

YU. The data collected indicated that 14.3 percent of the YU participants believed their program was strong in terms of physical facilities in existing classrooms at Yarmuk University; 56.9 percent felt it was neither weak nor strong, while the other 28.6 percent felt it was weak in this area.

UJ. The data indicated that 60 percent of the UJ participants believed their program was neither weak nor strong in terms of physical facilities in existing classrooms at the University of Jordan, while 40 percent believed it was weak in terms of accommodating effective use of educational media.

OSU. The data indicated that 92.86 percent of the OSU participants believed their program was neither weak nor strong regarding the physical facilities in existing classrooms at Oklahoma State University; 7.14 percent did not respond to this item.

IV-B: Physical Facilities in New Classrooms, Data

YU. Table XI shows that 14.3 percent of the YU participants rated

their program at the optimal level regarding the physical facilities in new classrooms that make optimum use of educational media; 28.6 percent felt that facilities in new classrooms were at the functional level; 42.8 percent felt they were minimal and 14.3 percent believed they were inadequate.

UJ. Table XI indicates that 20 percent of the UJ respondents felt the physical facilities in new classrooms at the University of Jordan were optimal for the use of media; 40 percent felt they were minimal and 40 percent felt they were inadequate to make optimum use of educational media.

OSU. Table XI indicates that 7.14 percent of the OSU respondents felt the physical facilities in new classrooms on their campus were optimal for accommodating effective use of educational media; 35.72 percent felt they were functional and 57.14 rated them as being minimal in this area.

IV-B: Evaluation

YU. The data collected indicated that 14.3 percent of the YU participants believed their program was strong in terms of the physical facilities in new classrooms at the Yarmuk University; 71.4 percent believed it was neither weak nor strong in this area and 14.3 percent felt it was weak.

UJ. The data indicated that 20 percent of the UJ participants believed their program was strong in terms of physical facilities in new classrooms to accommodate effective use of media, 40 percent

believed it was neither weak nor strong and 40 percent believed it was weak in this area.

OSU. The data indicated that 7.1 percent of OSU respondents believed their program was strong in terms of physical facilities in new classrooms to accommodate effective use of media while the other 92.9 percent believed it was neither strong nor weak in this area.

Evaluative Checklist: Section V, Budget and Finance of the Educational Media Programs

Section V, items A, B and C of the "Evaluative Checklist" obtained judgmental responses relating to the development of the media budget basis for budget allocations and reporting financial needs of the media programs involved in the study. The participant's judgments were based on the criteria included in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table XII indicated responses of the participants to the items of this section in percentages at four levels of the media program adequacy: optimal, functional, minimal, and inadequate.

V-A: Development of Media, Data

YU. Table XII indicates that 14.3 percent of the YU participants judged the development of the educational media center budget as being at the optimal level; 28.6 percent felt it was functional while 57.1 percent regarded it as being inadequate to reflect most of the needs of the institution.

TABLE XII

PERCENTAGES OF THE RESPONDENTS WHO EVALUATED SECTION V (BUDGET AND FINANCE OF THE EDUCATIONAL MEDIA PROGRAMS) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Development of Media Budget	YU	14.3	28.6	0	57.1	0
		UJ	20	0	40	40	0
		OSU	0	64.3	35.7	0	0
B	Basis for Budget Allocations	YU	28.6	42.8	0	28.5	0
		UJ	40	20	0	0	40
		OSU	7.15	57.10	29.60	0	7.15
C	Reporting Financial Needs	YU	14.3	28.6	14.3	42.8	0
		UJ	0	40	0	0	60
		OSU	42.86	28.58	21.42	0	7.14

Source; Evaluative Checklist, Section V

UJ. Table XII indicates that 20 percent of the UJ participants felt the development of the educational media center budget was optimal to reflect the needs of the institution; 40 percent rated this development as being minimal and the other 40 percent felt this development of the budget was inadequate in this area.

OSU. Table XII indicates that 64.3 percent of the OSU respondents felt the development of their media budget was functional to reflect the needs of the institution while the other 35.7 percent felt its development was minimal.

V-A: Evaluation

YU. The data indicated that 14.3 percent of the YU respondents believed the development of their educational budget was strong to reflect the needs of the university; 28.6 percent felt this development of the media budget was neither strong nor weak, while the other 57.1 percent felt its development was weak to reflect the institution's media needs.

UJ. The data indicated that 20 percent of the UJ respondents believed the development of their media budget was strong; 40 percent believed its development was neither weak nor strong and 40 percent felt its development was weak to reflect the institution's educational media needs.

OSU. All of OSU respondents believed the development of their media budget was neither strong nor weak to reflect the media needs of the entire institution.

V-B: Basis for Budget Allocations, Data

YU. Table XII indicates that 28.6 percent of the YU participants rated their program as being at the optimal level regarding the basis for the educational media budget allocations; 42.8 percent felt the budget allocations were at the functional level while 28.6 percent felt the basis for allocations were inadequate in this area.

UJ. Table XII shows that 40 percent of the UJ participants felt the basis for the media budget allocations was optimal and 20 percent felt it was at the functional level. No response was given to this item by 40 percent regarding this area.

OSU. Table XII indicates that 7.15 percent of OSU participants judged their program as being optimal in terms of basis for media budget allocations; 57.10 percent felt it was functional and 28.60 percent rated it as being minimal; 7.15 percent did not respond to this item regarding this area.

V-B: Evaluation

YU. The data indicated that 28.6 percent of the YU participants believed the basis for the educational media budget allocations was strong; 42.8 percent believed the basis was neither strong nor weak while 28.6 percent felt it was weak in this area.

UJ. The data indicated that 40 percent of the UJ participants believed the basis for the educational media budget allocations was strong; 20 percent felt it was neither strong nor weak while 40 percent did not give any response to this item.

OSU. The data showed that 7.15 percent of the OSU respondents believed the basis for the educational media budget was strong while 85.70 percent believed it was neither weak nor strong, 7.14 percent did not respond to this item.

V-C: Reporting Financial Needs, Data

YU. Table XII indicates that 14.3 percent of the YU participants rated their program as being at the optimal level in the area of reporting financial needs of the educational media and 28.6 percent judged it as being at the functional level; 14.3 percent felt it was minimal, while the other 42.8 percent felt it was inadequate in this area.

UJ. Table XII indicates that 40 percent of the UJ respondents judged their program as being at the functional level in the area of reporting financial needs of the educational media, while the other 60 percent gave no response regarding this item.

OSU. Table XII shows that 42.86 percent of OSU respondents rated their program at the optimal level in terms of reporting the financial needs of the educational media; 28.58 percent judged it as being at the functional level, while 21.42 percent felt it was at the minimal level in this area. The other 7.14 percent did not respond to this item.

V-C: Evaluation

YU. The data indicated that 14.3 percent of the YU respondents believed their program was strong in the area of reporting the financial needs of the educational media to the university's president, while 42.8

percent felt it was neither weak nor strong. The other 42.8 percent believed it was weak in this area.

UJ. The data indicated that 40 percent judged their program as being neither weak nor strong in the area of reporting the financial needs of the educational media to the university's president while 60 percent did not respond to this item in this area.

OSU. The data indicated that 42.86 percent of the OSU respondents believed their program was strong in the area of reporting the financial needs of the educational media to the administration of the university, while 50 percent believed it was neither weak nor strong in this area. The other 7.14 percent gave no response to this item in this area.

Evaluative Checklist: Section VI, Educational Media Staff

Section VI, items A and B of the "Evaluative Checklist" obtained judgmental responses relating to the satellite center and the campus wide media staff. The respondents' responses were based on the criteria included in the criterion summary block on the "Evaluative Checklist" (Appendix B) and in the criteria (Appendix A). Table XIV indicated respondent's judgments in percentages at four levels of the media program adequacy: optimal, functional, minimal and inadequate.

TABLE XIII

PERCENTAGES OF RESPONDENTS WHO EVALUATED SECTION VI (EDUCATIONAL MEDIA STAFF) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Campus Wide Media Staff	YU	14.3	42.8	14.3	28.6	0
		UJ	20	40	20	20	0
		OSU	50.	42.85	7.15	0	0
B	Satellite Center Media Staff	YU	14.3	42.8	28.6	14.3	0
		UJ	0	0	0	0	100
		OSU	14.3	42.8	28.6	0	14.3

Source: Evaluative Checklist, Section VI

VI-A: Campus Wide Media Staff, Data

YU. Table XIII indicates that 14.3 percent of the YU respondents rated their program as being optimal in the area of campus wide media staff; 42.8 percent felt it was at the functional level, while 14.3 percent judged it as being at the minimal level. The other 28.6 percent felt it was inadequate in this area.

UJ. Table XIII shows that 20 percent of the UJ respondents felt their program was at the functional level in the area of campus wide media professional staff; 40 percent rated it as being at the functional level and 20 percent felt it was at the minimal level. The other 20 percent regarded it as inadequate in this area.

OSU. Table XIII shows that 50 percent of the OSU participants rated their program at the optimal level in terms of campus wide media professional staff; 42.8 percent judged it as being at the functional level, while 7.2 percent judged it as being at the minimal level in this area.

VI-A: Evaluation

YU. The data indicated that 14.3 percent of the YU respondents believed their program was strong in the area of the campus wide media staff, while 57.1 percent believed it was neither weak nor strong. The rest, 28.6 percent thought it was weak.

UJ. The data indicated that 20 percent of the UJ staff felt their program to be strong in the campus wide media professional staff, 40 percent believed it was neither weak nor strong and 20 percent believed it was weak in this area.

OSU. The data indicated that 50 percent of OSU respondents believed their program was strong in their professional media staff while the other 50 percent believed it was neither weak nor strong in this area of the media program.

VI-B: Satellite Center Media Staff, Data

YU. Table XIII indicates that 14.3 percent of the YU respondents rated their program as being at the optimal level in the area of satellite center media staff; 42.8 percent felt it was functional and 28.6 percent regarded it as minimal, while 14.3 percent felt it was inadequate in this area.

UJ. Table XIII indicates that all UJ respondents did not respond to this item because the Educational Technology Center at the University of Jordan has not yet established any satellite media centers on the campus.

OSU. Table XIII indicates that 14.3 percent of OSU respondents felt their program was operating at the optimal level in the area of satellite center media staff, while 42.8 percent rated it as being at the functional level and 28.6 percent felt it was at the minimal level. No response to this item was given by 14.3 percent of the respondents.

VI-B: Evaluation

YU. The data indicated 14.3 percent of the YU respondents felt their program was strong in providing satellite center professional media staff; 71.4 percent believed their program was neither weak nor strong in

this area, while 14.3 percent believed it was weak regarding this area of the media program.

UJ. The data indicated that all the UJ respondents did not respond to this item because the Educational Technology Center at the University of Jordan had not yet established any satellite centers.

OSU. The data indicated that 14.3 percent of OSU participants believed they had a strong program in the area of providing satellite center professional media staff; 71.4 percent believed their program was neither weak nor strong in this area. The other 14.3 percent did not respond to this item in this area.

Survey of Preference for University Educational Media Services Programs

The following analysis of preference for media services programs was based on the perceptions of the directors and media staffs of the centers involved in the study. Like the "Evaluative Checklist" (Appendix B), the "Preference Checklist" (Appendix C) was based on the criteria developed by Fulton, King, Teague and Tipling (1980a) (Appendix A). The "Preference Checklist" obtained preference responses from the partcipants for their media programs at four levels of the media program adequacy: optimal, functional, minimal and inadequate.

Preference Checklist: Section I, Administrative Commitment

I-A: Commitment to Media Programs, Data

YU. Table XIV indicates that 42.85 percent of the YU participants preferred administrative commitment to their program to be at the optimal level and the 57.15 percent preferred it to be at the functional level in this area.

UJ. Table XIV indicates that 80 percent of the UJ respondents preferred commitment to their media program to be at the optimal level, while the other 20 percent preferred it to be at the functional level in this area.

OSU. Table XIV shows that 92.9 percent of OSU participants preferred commitment to their program to be at the optimal level while the other 7.1 percent preferred the functional level.

I-A: Evaluation

YU. The data indicated that 42.85 percent of the YU respondents preferred a strong university administrative commitment to the media program; 57.17 percent preferred neither weak nor strong commitment in this area.

UJ. The data indicated that 80 percent of the UJ respondents believed the institution's commitment to the media program should be strong, while the other 20 percent preferred a degree of commitment which was neither weak nor strong.

TABLE XIV

PERCENTAGES OF RESPONDENT PREFERENCES ON SECTION I (ADMINISTRATIVE COMMITMENT) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Commitment to the Media Program	YU	42.85	57.15	0	0	0
		UJ	80	20	0	0	0
		OSU	92.9	7.1	0	0	
B	Commitment to Educational Media as an Integral Part of Instruction	YU	42.8	28.6	28.6	0	0
		UJ	40	40	0	0	20
		OSU	92.9	7.1	0	0	0
C	Commitment to Providing Educational Media Facilities	YU	71.4	28.6	0	0	0
		UJ	40	60	0	0	0
		OSU	78.6	21.4	0	0	0
D	Commitment to Financing the Educational Media Program	YU	85.7	0	0	14.3	0
		UJ	60	40	0	0	0
		OSU	92.9	7.1	0	0	0
E	Commitment to Staffing the Educational Media Program	YU	42.85	42.85	14.30	0	0
		UJ	60	40	0	0	0
		OSU	92.9	0	7.1	0	0

Source: Preference Checklist, Section 1

OSU. The data showed that 92.9 percent of OSU respondents preferred a strong administrative commitment to the media program, while the other 7.1 percent preferred it to be neither weak nor strong.

I-B: Commitment to Educational Media as an Integral Part of Instruction, Data

YU. Table XIV indicates that 42.8 percent of YU respondents preferred their institution to be providing optimal levels of commitment to educational media as integral parts of instruction; 28.6 percent preferred it to be at a functional level while 28.6 preferred it to minimal.

UJ. Table XIV indicates that 40 percent of the UJ respondents believed their university's administration commitment to educational media as an integral part of instruction should be at the optimal level; 40 percent preferred it be at a functional level, while 20 percent gave no response.

OSU. Table XIV indicates that 92.9 percent preferred their institutional administration commitment to provide educational media as an integral part of instruction at the optimal level, while the other 7.1 percent preferred it to be functional.

I-B: Evaluation

YU. The data indicated that 42.85 percent of the YU participants preferred their institutional administration's commitment to providing educational media as an integral part of instruction to be strong while 57.15 preferred it to be neither weak nor strong.

UJ. The data indicated that 40 percent of the UJ participants believed that the institutional administration commitment to providing educational media as integral part of instruction should be strong; 40 percent preferred it to be neither weak nor strong, while 20 percent gave no response to this item.

OSU. The data indicated that 92.9 percent of the OSU participants believed the university's administration commitment to providing educational media as an integral part of instruction should be strong, while the other 7.1 percent preferred it to be neither weak nor strong.

I-C: Commitment to Educational Media Facilities, Data

YU. Table XIV indicates that 71.4 percent of the YU respondents preferred the institution's commitment to provide the educational media facilities to be at the optimal level. The other 28.6 percent preferred this commitment to be at the functional level.

UJ. Table XIV shows that 40 percent of the UJ participants preferred their institution's commitment to provide educational media facilities at the optimal level and 40 percent preferred it to be at the functional level. The other 20 percent preferred it to be minimal in this area.

OSU. The data indicates that 78.6 percent of the OSU respondents preferred their institution's commitment to provide educational media facilities at the optimal level, while the other 21.4 percent preferred it to be at the functional level.

I-C: Evaluation

YU. The data indicated that 71.4 percent of the YU respondents preferred their institution's administration to be strongly committed to provide educational media facilities, while the other 28.6 percent preferred this commitment to be neither weak nor strong.

UJ. The data showed that 40 percent of the UJ participants preferred a strong commitment to educational media facilities on the part of the university's administration. The other 60 percent believed this commitment should be neither weak nor strong.

OSU. The data indicated that 78.6 percent of the OSU respondents preferred a strong commitment to educational media facilities on the part of the institution's administration, while the other 21.4 percent preferred it to be neither weak nor strong.

I-D: Commitment to Financing the Educational Media Program,Data

YU. Table XIV indicates that 85.7 percent of the YU respondents preferred the university's administration commitment to financing the educational media program at the optimal level, while the other 14.3 percent gave no response to this item.

UJ. Table XIV indicates that 60 percent of the UJ participants preferred their institutional administration's commitment to financing the educational media program to be at the optimal level, while the other 40 percent believed it should be at the functional level.

OSU. Table XIV indicates that 92.9 percent of OSU participants preferred their university's administrative commitment to financing the educational media program at the optimal level, while the other 7.1 percent believed it should be at the functional level.

I-D: Evaluation

YU. The data indicated that 85.7 percent of the YU respondents preferred their institution's administration to be strongly committed to financing the educational media program, while the other 7.1 percent preferred this commitment to be weak.

UJ. The data showed that 60 percent of the UJ respondents preferred their institutional administration to be strongly committed to financing the educational media program while the other 40 percent preferred this commitment to be neither weak nor strong.

OSU. The data indicated that 92.9 percent of OSU respondents preferred their university's administration to be strongly committed to financing the educational media program. The other 7.1 percent thought this commitment should be neither weak nor strong.

I-E: Commitment to Staffing the Educational Media Program,Data

YU. Table XIV shows that 42.85 percent of the YU respondents preferred their university's administration commitment to staffing the educational media program to be at the optimal level; 42.85 percent preferred this commitment to be at the functional level while 14.30 percent desired it to be minimal.

UJ. Table XIV indicates that 60 percent of the UJ participants believed their university's administration commitment to staffing the educational media program should be at the optimal level, while 40 percent preferred the functional level in this area.

OSU. Table XIV shows that 92.9 percent of OSU respondents preferred their institution's administration commitment to staffing the educational media program to be at the optimal level, while the other 7.1 percent preferred this commitment to be at the minimal level.

I-E: Evaluation

YU. The data indicated that 42.85 percent of the YU respondents believed their institution's administration should be strongly committed to staffing the educational media program, while 57.15 percent preferred this commitment to be neither weak nor strong in this area.

UJ. The data indicated that 60 percent of the UJ respondents believed their university's administration should be strongly committed to staffing the educational media program, while 40 percent believe it should be neither weak or strong.

OSU. The data indicated that 92.9 percent of OSU respondents preferred their university's administration should be strongly committed to staffing the educational media program, while the other 7.1 percent believed this commitment should be neither weak nor strong.

Preference Checklist: Section II, Educational Media Services - Curriculum and Instruction

II-A: Consultative Services in Educational Media Utilization,Data

YU. Table XV indicates that 28.6 percent of the YU respondents preferred consultative services in educational media utilization offered by the media program to be at the optimal level; 57.1 percent preferred it to be at the functional level, while 14.3 percent preferred it to be minimal.

UJ. Table XV shows that 60 percent of the UJ participants preferred the consultative services in educational media utilization rendered by the media program to be at the optimal level; 20 percent preferred it to be at the functional level, while 20 percent of the respondents gave no answer.

OSU. Table XV indicates that 85.7 percent of the OSU participants believed their program should render consultative services in educational media utilization to faculty, staff and students at the optimal level, while the other 14.3 percent preferred this service to be at the minimal level.

II-A: Evaluation

YU. The data indicated that 28.6 percent of the YU participants believed their program should be strong in rendering consultative services in educational media utilization to faculty, staff and students. The other 71.4 percent believed this service should be neither weak nor strong.

TABLE XV

PERCENTAGES OF RESPONDENT PREFERENCES ON SECTION II (CONSULTATIVE SERVICES IN EDUCATIONAL MEDIA UTILIZATION) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Consultative Services in Educational Media Utilization	YU	28.6	57.1	14.3	0	0
		UJ	60	20	0	0	20
		OSU	85.7	0	14.3	0	0
B	Inservice Education in Educational Media Utilization	YU	28.6	57.1	14.3	0	0
		UJ	60	20	20	0	0
		OSU	57.1	72.9	0	0	0
C	Utilization of Educational Media	YU	42.8	28.6	0	0	28.6
		UJ	60	40	0	0	0
		OSU	78.6	21.4	0	0	0
D	Involvement of Media Staff in Planning	YU	28.6	42.8	28.6	0	0
		UJ	20	60	20	0	0
		OSU	78.6	21.4	0	0	0

Source: Preference Checklist, Section II

UJ. The data showed that 60 percent of the UJ respondents preferred the consultative services in educational media utilization rendered by their media program to be strong; 20 percent believed this service should be neither weak not strong, while 20 percent gave no response in this area.

OSU. The data indicated that 85.7 percent of OSU respondents preferred the consultative services rendered by their media program in media utilization to be strong, while 14.3 percent believed this service should be neither weak nor strong.

II-B: Inservice Education in Educational Media Utilization, Data

YU. Table XV shows that 28.6 percent of the YU respondents preferred their program to be at the optimal level regarding inservice education in educational media utilization and the involvement of the media staff in such activities; 57.1 percent preferred this level to be functional, while 14.3 percent preferred it to be minimal.

UJ. Table XV indicates that 60 percent of the UJ respondents preferred their programs to offer inservice education in educational media utilization to faculty and staff at the optimal level; 20 percent desired this level to be functional, while 20 percent preferred it to be minimal.

OSU. Table XV shows that 57.1 percent of OSU respondents preferred their programs to offer inservice education in educational media utilization to faculty and staff at the optimal level while 21.4 percent believed this level should be functional.

II-B: Evaluation

YU. The data indicated that 28.6 percent of the YU participants believed their program should be strong in rendering inservice education in educational media utilization at the optimal level, while 71.4 percent preferred their program to be neither weak nor strong in this area.

UJ. The data indicated that 60 percent of the UJ respondents preferred their program to be strong in offering inservice education in educational media utilization to faculty and staff. The other 40 percent believed it should be neither weak nor strong.

OSU. The data indicated that 57.1 percent of OSU respondents believed their program should be strong in offering inservice education in educational media utilization to faculty and staff, while the other 42.9 percent believed it should be neither weak nor strong.

II-C: Utilization of Educational Media, Data

YU. Table XV shows that 42.8 percent of YU respondents preferred that faculty, students, and staff utilization of educational media to be at the optimal level; 28.6 percent preferred this utilization to be at the functional level, while 28.6 percent did not respond to this item.

UJ. Table XV indicates that 60 percent of UJ respondents preferred their faculty, staff and student utilization of educational media to be at the optimal level, while 40 percent preferred this utilization to be at the functional level.

OSU. Table XV indicates that 78.6 percent of OSU respondents believed the faculty, staff and student utilization of educational media

should be at the optimal level, while 21.4 percent believed it should be at the functional level.

II-C: Evaluation

YU. The data indicated that 42.8 percent of the YU participants believed the faculty, staff and student utilization of educational media should be strong in their program; 28.6 percent preferred it to be neither weak nor strong and 28.6 percent gave no response to this item.

UJ. The data indicated that 60 percent of UJ respondents believed faculty, staff and student utilization of media should be strong, while 40 percent believed it should be neither weak nor strong.

OSU. The data indicated that 78.6 percent of OSU respondents believed faculty, staff and student utilization of media should be strong, while the other 21.4 percent believed it should be neither strong nor weak.

II-D: Involvement of Media Staff in Planning, Data

YU. Table XV shows that 28.6 percent of the YU respondents believed they should be involved at the optimal level with faculty, staff and students in planning for the use of media; 42.8 percent preferred this involvement to be at the functional level and 28.6 percent preferred this level to be minimal.

UJ. Table XV shows that 20 percent of the UJ respondents preferred involvement of media staff in planning for the use of media

to be at the optimal level. The functional level was preferred by 60 percent and the minimal was desired by 20 percent.

OSU. Table XV indicates that 78.6 percent of OSU respondents believed involvement of media staff with faculty, staff and students in planning for the use of media should be at the optimal level, while 21.4 percent preferred it to be at the functional level.

II-D: Evaluation

YU. The data indicated that 28.6 percent believed that there should be strong media staff involvement with faculty, staff, and students in planning for the use of media, while 71.4 percent desired this involvement to be neither weak nor strong.

UJ. The data indicated that 20 percent of the UJ respondents preferred involvement of media staff in planning while 80 percent believed this involvement should be neither weak nor strong.

OSU. The data indicated that 78.6 percent of OSU respondents preferred involvement of media staff with faculty, staff and students in planning for the use of media to be strong, while 21.4 percent believed it should be neither weak nor strong.

Preference Checklist: Section III, Educational Media Center

III-A: Location and Accessibility of Educational Media Data

YU. Table XVI shows that 42.86 percent of YU respondents preferred the location of the primary educational media center and accessibility of

educational media to faculty, staff and students to be at the optimal level, while 57.14 percent preferred this level to be functional.

UJ. Table XVI indicates that 60 percent of UJ respondents believed location of the primary media center and accessibility of educational media to faculty, staff and students should be at the optimal level, while the other 40 percent believed it should be at the functional level.

OSU. Table XVI indicates that 85.7 percent of OSU respondents believed the location of primary center and accessibility of educational media to faculty, staff and students should be at the optimal level, while the functional level was desired by 14.3 percent of the respondents.

III-A: Evaluation

YU. The data indicated that 42.86 percent of YU respondents believed that the location of the media center and accessibility of educational media to user should be strong, while 57.14 percent preferred the location and accessibility to be neither weak nor strong.

UJ. The data indicated that 60 percent of UJ respondents believed their program should be strong in terms of location of media center and accessibility of educational media to faculty, staff and students, while 40 percent believed it should be neither weak nor strong.

TABLE XVI

PERCENTAGES OF RESPONDENT PREFERENCES ON SECION III: (THE EDUCATIONAL MEDIA CENTER) OF THEIR MEDIA PROGRAM

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Location and Accessibility of Educational Media	YU	42.86	57.14	0	0	0
		UJ	60	40	0	0	0
		OSU	85.7	14.3	0	0	0
B	Dissemination of Media Information	YU	71.4	0	28.6	0	0
		UJ	60	20	0	0	20
		OSU	78.6	21.4	0	0	0
C	Availability of Educational Media	YU	57.1	28.6	14.3	0	0
		UJ	60	40	0	0	0
		OSU	85.7	14.3	0	0	0
D	Storage and Retrieval of Media	YU	42.85	42.85	14.30	0	0
		UJ	40	40	20	0	0
		OSU	85.7	14.3	0	0	0
E	Maintenance of Media	YU	57.1	28.6	0	0	14.3
		UJ	60	20	0	0	20
		OSU	92.9	7.14	0	0	0
F	Production of Media	YU	42.86	57.14	0	0	0
		UJ	60	20	0	0	20
		OSU	50	50	0	0	0

Source: Preference Checklist, Section III

OSU. The data showed that 85.7 percent of OSU respondents preferred their program to be strong in terms of the location of the media center and accessibility of educational media to faculty, staff and students, while 14.3 percent believed it should be neither weak nor strong.

III-B: Dissemination of Educational Media Information, Data

YU. Table XVI shows that 71.4 percent of YU respondents preferred dissemination of media information to users to be at the optimal level, while the other 28.6 believed it should be minimal in this area.

UJ. Table XVI indicates that 60 percent of UJ respondents believed dissemination of media information should be at the optimal level. The functional level was preferred by 20 percent while no response was given by 20 percent.

OSU. Table XVI shows that 78.6 percent of OSU respondents preferred dissemination of educational media information to be at the optimal level, while 21.4 percent preferred it to be at the functional level.

III-B: Evaluation

YU. The data indicated that 71.4 percent of YU respondents believed their media program should be strong in terms of dissemination of media information to prospective users, while 28.6 percent believed it should be neither weak nor strong.

UJ. The data indicated that 60 percent of UJ respondents preferred their program to be strong in the area of disseminating media information to users; 20 percent preferred it to be neither weak nor strong, while no response was given by 20 percent.

OSU. The data indicated that 78.6 percent of OSU respondents preferred their program to be strong in the area of dissemination of media information to users while 21.4 percent preferred it to be neither weak nor strong.

III-C: Availability of Educational Media, Data

YU. Table XVI shows that 57.1 percent of YU respondents preferred their program to be at the optimal level in terms of the availability of educational media to users; 28.6 percent preferred this level to be functional and the other 14.3 percent preferred it to be minimal.

UJ. Table XVI indicates that 60 percent of UJ respondents preferred the availability of educational media to users at the optimal level, while the functional level was desired by the other 40 percent.

OSU. Table XVI indicates that 85.7 percent of OSU respondents preferred their program to be at the optimal level regarding the availability of educational media, while 14.3 percent believed it should be functional.

III-C: Evaluation

YU. The data indicated that 57.15 percent of YU respondents preferred their media program to be strong in the area of the availability

of educational media to users; 42.85 percent believed it should be neither weak nor strong in this area.

UJ. The data indicated that 60 percent of UJ respondents preferred their program to be strong in terms of the availability of educational media to users, while 40 percent thought it should be neither weak nor strong.

OSU. The data indicated that 85.7 percent of OSU respondents believed their program should be strong regarding the availability of educational media, while 14.3 thought it should be neither weak nor strong in this area.

III-D: Storage and Retrieval of Media, Data

YU. Table XVI shows that 42.85 percent of YU respondents preferred their program to be at the optimal level regarding storage and retrieval of media; 42.85 percent thought it should be at the functional level, while 14.30 percent believed it should be minimal.

UJ. Table XVI indicates that 40 percent of UJ respondents thought storage and retrieval of media should be at the optimal level; 40 percent preferred the functional level and the other 20 percent believed it should be minimal.

OSU. Table XVI indicates that 85.7 percent of OSU respondents preferred storage and retrieval of media to be at the optimal level, while 14.3 percent preferred storage and retrieval of educational media and instructional materials to be at the funcational level.

III-D: Evaluation

YU. The data indicated that 42.85 percent of YU respondents thought their program should be strong in the area of storage and retrieval of media, while 57.15 believed it should be neither weak nor strong.

UJ. The data indicated that 40 percent of the UJ respondents preferred their program to be strong in the area of storage and retrieval of media while 60 percent believed it should be neither weak nor strong in this area.

OSU. The data indicated that 85.7 percent of OSU respondents preferred their program to be strong in the area of storage and retrieval of media while 14.3 percent believed it should be neither weak nor strong.

III-E: Maintenance of Media, Data

YU. Table XVI indicates that 57.1 of YU respondents preferred their program to be at the optimal level in the area of maintenance of media; 28.6 percent preferred it to be at the functional, while no response was given by 14.3 percent of the respondents.

UJ. Table XVI indicates that 60 percent of UJ participants believed their program should be at the optimal level in the area of maintenance of media; 20 percent preferred it to be at the functional level while no response was given by 20 percent.

OSU. Table XVI shows that 92.9 percent of OSU respondents their program to be at the optimal level in the area of maintenance

of media while 7.1 percent preferred it to be at the functional level.

III-E: Evaluation

YU. The data indicated that 57.1 percent of YU participants thought their program should be strong in the area of maintenance of media and 28.6 percent preferred it to be neither weak nor strong. No response was given by 14.3 percent.

UJ. The data indicated that 60 percent of the UJ participants preferred their program to be strong in the area of maintenance and 20 percent preferred it to be neither weak nor strong. No preference was made by 20 percent of the participants in this area.

OSU. The data indicated that 92.9 percent of OSU respondents preferred their program to be strong in the area of maintenance while 7.1 percent preferred it to be neither weak nor strong.

III-F: Production of Media,Data

YU. Table XVI shows that 42.86 percent of the YU respondents believed production of media should be at the optimal level in their program while 57.14 percent believed it should be at the functional level.

UJ. Table XVI indicates that 60 percent of the UJ respondents preferred their program should be at the optimal level in the area of production of media; 20 percent preferred it to be at the functional level while no preference was made by 20 percent of the participants.

OSU. Table XVI indicated that 50 percent of OSU media staff preferred production of media to be at the optimal level while the other 50 percent felt it should be at the functional level.

III-F: Evaluation

YU. The data indicated that 42.86 percent believed their program should be strong in the area of production of media while 57.14 percent thought it should be neither weak nor strong in this area.

UJ. The data indicated that 60 percent of the UJ respondents believed their program should be strong in terms of production of media while 20 percent felt it should be neither weak nor strong. No preference was made by 20 percent of the participants.

OSU. The data indicated that 50 percent believed their program should be strong in the area of production of media while the other 50 percent felt it should be neither weak nor strong.

Preference Checklist: Section IV, Physical Facilities for Educational Media

IV-A: Physical Facilities in Existing Classrooms, Data

YU. Table XVII indicates that 28.6 percent of the YU respondents felt their program should be at the optimal level in the area of physical facilities in existing classrooms; 57.1 preferred it to be at the functional level and 14.3 percent thought it should be at the minimal level.

TABLE XVII

PERCENTAGES OF RESPONDENT PREFERENCES ON SECTION IV (PHYSICAL FACILITIES FOR EDUCATIONAL MEDIA) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Physical Facilities in Existing Classrooms	YU	28.6	57.1	14.3	0	0
		UJ	60	20	0	0	20
		OSU	57.14	42.86	0	0	0
B	Physical Facilities in New Classrooms	YU	71.4	14.3	0	0	14.3
		UJ	60	40	0	0	0
		OSU	71.4	14.3	0	0	14.3

Source: Preference Checklist, Section IV

UJ. Table XVII shows that 60 percent of the UJ respondents thought physical facilities in existing classrooms should be at the optimal level and 20 percent believed this level should be at the functional. No preference was made by 20 percent of the participants.

OSU. Table XVII shows that 57.14 percent of OSU participants believed physical facilities in existing classrooms should be at the optimal level while the other 42.86 percent felt this level should be functional.

IV-A: Evaluation

YU. The data indicated that 28.6 percent of the YU participants preferred physical facilities in existing classrooms should be strong in their program, while 71.4 percent felt their program should be neither weak nor strong in this area.

UJ. The data indicated that 60 percent of the UJ participants felt their program should be strong in the area of physical facilities in existing classrooms while 20 percent felt it should be neither weak nor strong. No preference was made by 20 percent.

OSU. The data indicated that 57.14 percent of OSU respondents preferred their program should be strong in the area of physical facilities in existing classrooms while 42.86 percent felt it should be neither weak nor strong.

IV-B: Physical Facilities in New Classrooms Data

YU. Table XVII indicates that 71.4 percent of YU respondents preferred that the physical facilities in newly constructed classrooms

should be at the optimal level while 14.3 percent preferred the functional level. No preference was made by 14.3 percent of the participants in this area.

UJ. Table XVII shows that 60 percent preferred physical facilities in new classrooms to be at the optimal level while the other 40 percent preferred it should be at the functional level.

OSU. Table XVII shows that 71.4 percent of OSU respondents felt physical facilities in new classrooms should be at the optimal level; 14.3 percent preferred the functional level. No preference was made by 14.3 percent of the participants in this area.

IV-B: Evaluation

YU. The data indicated that 71.4 percent of the YU respondents believed their program should be strong in the area of physical facilities in new classrooms; 14.3 percent believe it should be neither weak nor strong while no preference was made by 14.3 percent.

UJ. The data indicated that 60 percent of the UJ respondents believed their program should be strong in the area of physical facilities in new classrooms while 40 percent preferred it should be neither weak nor strong.

OSU. The data indicated that 71.4 percent of the OSU respondents preferred their program to be strong in terms of physical facilities in new classrooms; 14.3 percent preferred it to be neither weak nor strong while no preference was made by 14.3 percent.

Preference Checklist: Section V, Budget and Finance of the Educational Media Program

V-A: Development of Media Budget, Data

YU. Table XVIII shows that 28.6 percent of the YU respondents preferred that the budget of the educational media program should reflect media needs of the university at the optimal level while 42.8 percent preferred this level to be functional; 28.6 percent believed it should be minimal.

UJ. Table XVIII shows that 40 percent believed their media program should be at the optimal level in the area of the budget development of media in reflecting media needs of the university; 60 percent felt it should be at the functional level.

OSU. Table XVIII indicates that 92.9 percent of OSU participants believed the media budget should be at the optimal level in reflecting media needs of the university while 7.1 percent believed it should be at the functional level.

V-A: Evaluation

YU. The data indicated that 28.6 percent of YU participants preferred their program to be strong in terms of media budget and its reflection of media needs of the university while 71.4 percent felt it should be neither weak nor strong in the media program.

UJ. The data indicated that 40 percent preferred their program be strong in terms of media budget and its reflection of media needs of the institution, while 60 percent felt it should be neither weak no strong in the program.

TABLE XVIII

PERCENTAGES OF RESPONDENT PREFERENCES ON SECTION V (BUDGET AND FINANCE OF THE EDUCATIONAL MEDIA PROGRAM) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Development of Media Budget	YU	28.6	42.8	28.6	0	0
		UJ	40	60	0	0	0
		OSU	92.9	7.1	0	0	0
B	Basis for Budget Allocations	YU	42.85	42.85	14.13	0	0
		UJ	60	40	0	0	0
		OSU	92.9	7.1	0	0	0
C	Reporting Financial Needs	YU	42.85	57.15	0	0	0
		UJ	40	20	0	0	40
		OSU	78.6	14.3	0	0	7.1

Source: Preference Checklist, Section V

OSU. The data indicated 92.9 percent of OSU respondents believed their program should be strong in terms of media budget and its reflection of media needs of the university, while 7.1 percent felt it should be neither weak nor strong.

V-B: Basis for Budget Allocations,Data

YU. Table XVIII shows that 42.85 percent of the YU respondents believed their program should be at the optimal level regarding the basis for budget allocations; 42.85 percent thought the basis should be at the functional level, while 14.3 percent felt it should be minimal.

UJ. Table XVIII indicates that 60 percent of UJ respondents thought the basis for budget allocations should be at the optimal level while 40 percent believed it should be at the functional level.

OSU. Table XVIII shows that 92.9 percent of OSU respondents preferred their program to be at the optimal level regarding the basis for budget allocations while 7.1 percent thought it should be at the functional level.

V-B: Evaluation

YU. The data indicated that 42.85 percent of YU respondents preferred their program should be strong in terms of the basis for budget allocations; 57.14 percent preferred it should be neither weak nor strong.

UJ. The data indicated that 60 percent of UJ respondents preferred their program should be strong regarding the basis for budget allocations while 40 percent felt it should be neither weak nor strong in this area.

OSU. The data indicated that 92.9 percent felt their program should be strong in terms of the basis for budget allocations while 7.1 percent preferred it should be neither weak nor strong.

V-C: Reporting Financial Needs, Data

YU. Table XVIII indicates that 42.85 percent of YU respondents preferred their program should be at the optimal level regarding reporting financial needs of the educational media program, while 57.15 percent preferred this level to be functional.

UJ. Table XVIII indicates that 40 percent of UJ respondents desired their program should be at the optimal level regarding reporting financial needs of the educational media program to the university's administration while 20 percent preferred the functional level. No preference was made by 40 percent of the participants.

OSU. Table XVIII indicates that 78.6 percent of OSU respondents felt their program should be at the functional level regarding reporting financial needs of the media program while 14.3 percent believed it should be at the functional level. No preference was made by 7.1 percent.

V-C: Evaluation

YU. The data indicated that 42.85 percent of the YU respondents believed their program should be strong regarding reporting financial needs of the educational media program to the administration of the university; 57.15 percent believed it should be neither weak nor strong.

UJ. The data indicated that 40 percent preferred their program should be strong relating to reporting financial needs of the educational

media program while 20 percent preferred it to be neither weak nor strong. No preference was made by 40 percent of the participants.

OSU. The data indicated that 78.6 percent of OSU respondents felt their program should be strong relating to reporting financial needs of the educational media program; 14.3 percent believed it should be neither weak nor strong. No preference was made by 7.1 percent of the respondents.

Preference Checklist: Section V, Educational Media Staff

VI-A: Campus Wide Media Staff Data

YU. Table XIX indicates that 28.6 percent of YU participants preferred their media program should be at the optimal level regarding campus wide media professional staff, while 71.4 percent believed their program should be at the functional level.

UJ. Table XIX indicates that 40 percent of the UJ respondents preferred their program should be at the optimal level relating to the professional media staff while 40 percent thought it should be at the functional level. No preference was made by 20 percent in the study.

OSU. Table XIX shows that 85.70 percent of OSU respondents preferred their program to be at the optimal level regarding the campus wide professional media staff; 7.15 percent preferred it should be at the functional level. No preference was made by 7.15 percent of the respondents.

TABLE XIX

PERCENTAGES OF RESPONDENT PREFERENCES ON SECTION VI (EDUCATIONAL MEDIA STAFF) OF THEIR MEDIA PROGRAMS

	Media Program Items	Name of Institution	Optimal%	Functional%	Minimal%	Inadequate%	No Answer%
A	Campus Wide Media Staff	YU	28.6	71.4	0	0	0
		UJ	40	40	0	0	20
		OSU	85.70	7.15	0	0	7.15
B	Satellite Center Media Staff	YU	28.6	57.1	0	0	14.3
		UJ	40	0	0	0	60
		OSU	50	35.7	0	0	14.3

Source: Preference Checklist, Section

VI-A: Evaluation

YU. The data indicated that 28.6 percent of the YU respondents felt their program should be strong regarding the professional media staff while 71.4 percent believed it should be neither weak nor strong.

UJ. The data indicated that 40 percent of the UJ respondents believed their program should be strong regarding the professional media staff; 20 percent felt it should be neither weak nor strong. No preference was made by 20 percent of the participants.

OSU. The data indicated that 85.70 percent of the OSU participants believed their program should be strong regarding the professional media staff, while 7.15 percent felt it should be neither weak nor strong. No preference was made by 7.15 percent of the respondents.

VI-B: Satellite Center Media Staff, Data

YU. Table XIX shows that 28.6 percent of the YU respondents believed that satellite centers should be served by media staff at the optimal level; 57.1 percent believed it should be at the functional level. No preference was made by 14.3 percent.

UJ. (Though the Educational Technology Center at the University of Jordan has not yet established satellite centers on campus, the media staff expressed their preference for future satellite center media staffs.)

Table XIX indicates 40 percent of UJ respondents preferred their future programs to be at the optimal level regarding satellite center media staffs. No preference was expressed by 60 percent.

OSU. Table XIX indicates that 50 percent of the OSU respondents preferred their satellite center media staff should be at the optimal level; 35.7 percent preferred them to be at the functional level. No preference was expressed by 14.3 percent in this area.

VI-B: Evaluation

YU. The data indicated that 28.6 percent of YU respondents believed their satellite center media staff should be strong regarding professionalism and media specialization; 57.1 percent preferred such staff need be neither weak nor strong; 14.3 percent expressed no preference.

UJ. The data indicated that 40 percent of the UJ participants expressed preference for future strong media satellite staff. No preference was made by 60 percent.

OSU. The data indicated that 50 percent of OSU respondents believed satellite center media staff should be professionally strong, while 35.7 percent believed such staff should be neither strong nor weak. No preference was made by 14.3 percent of the participants.

CHAPTER V

MAJOR FINDINGS

Introduction

The major findings of this study are presented in two sections:

Section I: Major findings of the analysis of the data that were revealed by the two forms of the survey questionnaire: a) the "Evaluative Checklist" and b) The "Preference Checklist."

Section II: Major findings of the analysis of the data obtained from interviews the researcher conducted with the director of each center and from inventories, bulletins, and publications issued by each center.

Section I

Section I: Major Findings A

a. Strong Service Items

YU. The evaluation of the director and the staff of the Research and Development Center at the Yarmuk University indicated that there was only one strong service item in their media program: Availability of Educational Media. (See Table XX)

TABLE XX

EVALUATIVE CHECKLIST ITEMS RELATED TO EVALUATION OF THE MEDIA PROGRAM ITEMS AS PERCEIVED BY MEDIA STAFFS

Center	Strong	Neither Weak Nor Strong	Weak
YU	1	20	1
UJ	2	14	6
OSU	5	17	0

UJ. The media staff's perception of the Educational Technology Center at the University of Jordan indicated that there were two strong items in their program: (Table XX)

1. Basis for Budget Allocations
2. Commitment to Providing Educational Media Facilities

OSU. Table XX indicates that OSU media programs were strong in the following five media program items:

1. Commitment to the Media Program
2. Commitment to Staffing the Educational Media Program
3. Location and Accessibility of Educational Media
4. Maintenance of Media
5. Campus Wide Media Staff

b. Weak Service Items

YU. The perceptions of the YU media staff indicated that there was only one weak service item in their program: Development of Media Budget. (Table XX)

UJ. The perceptions of the UJ media staff indicated that there were six weak service items in their media program: (Table XX)

1. Utilization of Educational Media
2. Dissemination of Media Information
3. Availability of Educational Media
4. Maintenance of Media
5. Physical Facilities in Existing Classrooms
6. Satellite Center Media Staff

OSU. No perceived weak items were indicated.

c. Neither Weak nor Strong Service Items

YU. Based on the perceptions of the YU media staff, Table XX indicated that there were 20 neither weak nor strong service items in their program. Table XXI indicates those neither weak nor strong items.

UJ. Based on the judgments of the UJ media staff, Table XXI indicated fourteen items were neither weak nor strong in their program. Table XXI displays those neither weak nor strong areas.

OSU. As indicated by Table XX, OSU media staff perceived their program as neither weak nor strong in seventeen areas, Table XXI shows those neither weak nor strong items.

TABLE XXI

EVALUATIVE CHECKLIST ITEMS RELATED TO DISTRIBUTION OF NEITHER WEAK NOR STRONG ITEMS IN THE THREE MEDIA PROGRAMS AS PERCEIVED BY MEDIA STAFFS

Section Items		YU	UJ	OSU
Section I				
A	Commitment to the Media Program	X	X	
B	Commitment to the Educational Media as an Integral Part of Instruction	X	X	X
C	Commitment to Providing Educational Media Facilities	X		X
D	Commitment to Financing the Educational Media Program	X	X	X
E	Commitment to Staffing the Educational Media Program	X	X	
Section II				
A	Consultative Services in Educational Media Utilization	X	X	X
B	Inservice Education in Educational Media Utilization	X	X	X
C	Utilization of Educational Media	X		X
D	Involvement of Media Staff in Planning	X	X	X
Section III				
A	Location and Accessibility of Educational Media	X	X	
B	Dissemination of Media Information	X		X
C	Availability of Educational Media			X
D	Storage and Retrieval of Media	X	X	X
E	Maintenance of Media	X		
F	Production of Media	X		X
Section IV				
A	Physical Facilities in Existing Classrooms	X		X
B	Physical Facilities in New Classrooms	X	X	X
Section V				
A	Development of Media Budget		X	X
B	Basis for Budget Allocations	X	X	X
C	Reporting Financial Needs	X	X	X
Section VI				
A	Campus wide Media Staff	X	X	
B	Satellite Center Media Staff	X		X
Total		20	14	17

Section I: Major Findings B

The following findings pertaining to the quality of media programs were revealed by the data obtained from the participants' responses to the "Preference Checklist". Table XXII shows the distribution of the findings of the analysis of the "Preference Checklist" in terms of strong, neither weak nor strong, or weak service items of the media programs. Those were the participants' preferences for their media program service items as they should be.

TABLE XXII

PREFERENCE CHECKLIST ITEMS RELATED TO PREFERENCE FOR MEDIA PROGRAM ITEMS AS PERCEIVED BY MEDIA STAFFS

Center	Strong	Neigher Weak nor Strong	Weak
YU	8	14	0
UJ	18	4	0
OSU	21	1	0

a. Strong Preference Items

YU. The responses of the YU media staff members indicated they preferred that their program should be strong in eight media program items. Table XXIII shows those preferred strong areas.

UJ. The preferences of the UJ media staff members indicated they preferred their media program to be strong in eighteen items. Table XXIII displays those preferred strong areas.

OSU. Table XXIII revealed that OSU media staff preferred that their program should be strong in twenty-one items. Table XXIII indicated those preferred strong items.

b. Preferences for Neither Weak nor Strong Media Program Items

Preferences for neither weak nor strong media program items are indicated in Table XXIV .

YU. Table XXIV indicates that YU media staff preferred their program to be neither weak nor strong in the following fourteen areas:

1. Commitment to the Media Program
2. Commitment to the Educational Media as an Integral Part of Instruction
3. Commitment to Staffing the Educational Media Program
4. Consultative Services in Educational Media Utilization
5. Inservice Education in Educational Media Utilization
6. Involvement of Media Staff in Planning
7. Location and Accessibility of Educational Media
8. Storage and Retrieval of Media
9. Production of Media
10. Physical Facilities in Existing Classrooms
11. Development of Media Budget
12. Basis for Budget Allocations
13. Reporting Financial Needs
14. Campus wide Media Staff

TABLE XXIII

PREFERENCE CHECKLIST ITEMS RELATED TO PREFERENCES FOR STRONG MEDIA PROGRAM ITEMS AS DESIRED BY MEDIA STAFFS

Section Items		YU	UJ	OSU
Section I				
A	Commitment to the Media Program		X	X
B	Commitment to the Educational Media as an Integral Part of Instruction		X	X
C	Commitment to Providing Educational Media Facilities	X		X
D	Commitment to Financing the Educational Media Program	X	X	X
E	Commitment to Staffing the Educational Media Program		X	X
Section II				
A	Consultative Services in Educational Media Utilization		X	X
B	Inservice Education in Educational Media Utilization		X	X
C	Utilization of Educational Media	X	X	X
D	Involvement of Media Staff in Planning			X
Section III				
A	Location and Accessibility of Educational Media		X	X
B	Dissemination of Media Information	X	X	X
C	Availability of Educational Media	X	X	X
D	Storage and Retrieval of Media			X
E	Maintenance of Media	X	X	X
F	Production of Media		X	X
Section IV				
A	Physical Facilities in Existing Classrooms		X	X
B	Physical Facilities in New Classrooms	X	X	X
Section V				
A	Development of Media Budget			X
B	Basis for Budget Allocations		X	X
C	Reporting Financial Needs		X	X
Section VI				
A	Campus wide Media Staff		X	X
B	Satellite Center Media Staff	X	X	
Total		8	18	21

TABLE XXIV

PREFERENCE CHECKLIST ITEMS RELATED TO PREFERENCES FOR NEITHER WEAK NOR STRONG MEDIA PROGRAM ITEMS AS DESIRED BY MEDIA STAFFS

Section Items		YU	UJ	OSU
Section I				
A	Commitment to the Media Program	X		
B	Commitment to the Educational Media as an Integral Part of Instruction	X		
C	Commitment to Providing Educational Media Facilities		X	
D	Commitment to Financing the Educational Media Program			
E	Commitment to Staffing the Educational Media Program	X		
Section II				
A	Consultative Services in Educational Media Utilization	X		
B	Inservice Education in Educational Media Utilization	X		
C	Utilization of Educational Media			
D	Involvement of Media Staff in Planning	X	X	
Section III				
A	Location and Accessibility of Educational Media	X		
B	Dissemination of Media Information			
C	Availability of Educational Media			
D	Storage and Retrieval of Media	X	X	
E	Maintenance of Media			
F	Production of Media	X		X
Section IV				
A	Physical Facilities in Existing Classrooms	X		
B	Physical Facilities in New Classrooms			
Section V				
A	Development of Media Budget	X	X	
B	Basis for Budget Allocations	X		
C	Reporting Financial Needs	X		
Section VI				
A	Campus wide Media Staff	X		
B	Satellite Center Media Staff	X		
Total		14	4	1

UJ. Table XXIV indicates that UJ media staff preferred their programs to be neither weak nor strong in the following four areas:

1. Commitment to Providing Educational Media Facilities
2. Involvement of Media Staff in Planning
3. Storage and Retrieval of Media
4. Development of Media Budget

OSU. Table XXIV indicates that OSU media staff preferred their media program to be neither weak nor strong only in the following area: Production of Media.

C. Preferences for Weak Media Program Items

None of the three media center staffs preferred their programs to be weak in any of the media program items.

Agreement in Evaluation

1. The analysis indicated that YU and OSU media staffs agreed in their evaluation of their media programs to be neither weak nor strong in the following fifteen (15) items of the checklist:

   a. Commitment to the Educational Media as an Integral Part of Instruction
   b. Commitment to Providing Educational Media Facilities
   c. Commitment to Financing the Educational Media Program
   d. Consultative Services in Educational Media Utilization
   e. Inservice Education in Educational Media Utilization
   f. Utilization of Educational Media
   g. Involvement of Media Staff in Planning
   h. Dissemination of Media Information

i. Storage and Retrieval of Media

j. Production of Media

k. Physical Facilities in Existing Classrooms

l. Physical Facilities in New Classrooms

m. Basis for Budget Allocations

n. Reporting Financial Needs

o. Satellite Center Media Staff

2. The analysis indicated that UJ and OSU media staffs agreed in their evaluation of their media programs to be neither weak nor strong in the following ten items of the checklist:

a. Commitment to Financing the Educational Media Program

b. Consultative Services in Educational Media Utilization

c. Inservice Education in Educational Media Utilization

d. Involvement of Media Staff in Planning

e. Storage and Retrieval of Media

f. Physical Facilities in New Classrooms

g. Development of Media Budget

h. Basis for Budget Allocations

i. Reporting Financial Needs

3. The analysis indicated that YU and UJ media staffs agreed in their evaluation of fourteen items in their media programs:

a. Commitment to the Media Program

b. Commitment to the Educational Media as an Integral Part of Instruction

c. Commitment to Financing the Educational Media Program

d. Commitment to Staffing the Educational Media Program

e. Consultative Services in Educational Media Utilization

f. Inservice Education in Educational Media Utilization

g. Involvement of Media Staff in Planning

h. Location and Accessibility of Educational Media

i. Storage and Retrieval of Media

j. Physical Facilities in New Classrooms

k. Basis for Budget Allocations

l. Reporting Financial Needs

m. Campus wide Media Staff

4. Based on the evaluation of all three media staffs of the programs programs, the analysis of the data indicated they agreed in their evaluation on the following nine media program items:

a. Commitment to the Educational Media as an Integral Part of Instruction

b. Commitment to Financing the Educational Media Program

c. Consultative Services in Educational Media Utilization

d. Inservice Education in Educational Media Utilization

e. Involvement of Media Staff in Planning

f. Storage and Retrieval of Media

g. Physical Facilities in New Classrooms

h. Basis for Budget Allocations

i. Reporting Financial Needs

These items were evaluated as neither weak nor strong in all programs.

Agreement in Preference

1. Analysis indicated that YU and OSU media staffs agreed in their preference for their programs to be strong in the following seven items of the checklist:

a. Commitment to Providing Educational Media Facilities

b. Commitment to Financing the Educational Media Program

c. Utilization of Educational Media

d. Dissemination of Media Information

e. Availability of Educational Media

f. Maintenance of Media

g. Physical Facilities in New Classrooms

2. Analysis indicated that YU and OSU media staffs were in agreement on the preference for their programs to be neither weak nor strong in the following item of the checklist: Production of Media.

3. Analysis indicated that UJ and OSU media staffs agreed in their preference for their programs to be strong in the following seventeen items of the checklist:

a. Commitment of the Media Program

b. Commitment to the Educational Media as an Integral Part of Instruction

c. Commitment to Financing the Educational Media Program

d. Commitment to Staffing the Educational Media Program

e. Consultative Services in Educational Media Utilization

f. Inservice Education in Educational Media Utilization

g. Utilization of Educational Media

h. Location and Accessibility of Educational Media

i. Dissemination of Media Information

j. Availability of Educational Media

k. Maintenance of Media

l. Production of Media

m. Physical Facilities in Existing Classrooms

n. Physical Facilities in New Classrooms

o. Basis for Budget Allocations

p. Reporting Financial Needs

q. Campus Wide Media Staff

4. The analysis of the data indicated that YU and UJ media staffs agreed in their preference for their programs to be strong in the following seven items of the Checklist:

a. Commitment to Financing the Educational Media Program

b. Utilization of Educational Media

c. Dissemination of Media Information

d. Availability of Educational Media

e. Maintenance of Media

f. Physical Facilities in New Classrooms

g. Satellite Center Media Staff

5. The analysis indicated that YU and UJ media staffs agreed in their preference for their programs to be neither weak nor strong in the following three items of the checklist:

a. Involvement of Media Staff in Planning

b. Storage and Retrieval of Media

c. Development of Media Budget

6. Analysis of the data indicated that YU, UJ, and OSU media staffs were in agreement on the preference for the following six items to be strong in their media programs:

a. Commitment to Financing the Educational Media Program

b. Utilization of Educational Media

c. Dissemination of Media Information

d. Availability of Educational Media

e. Maintenance of Media

f. Physical Facilities in New Classrooms

Section II: Major Findings

The major findings of this section were indicated by the data obtained from the interviews the researcher conducted with the director of each center and from inventories, bulletins and publications issued by each one.

1. The Oklahoma State University Audio visual Center is the oldest among all the centers involved in the study. It was established in 1945. Although Yarmuk University was established fourteen years after the University of Jordan, Yarmuk University founded its audio visual center in 1978. In 1982 it was annexed to the Educational Research and Development Center.

TABLE XXV

HISTORY AND LOCATION OF MEDIA CENTERS

Event	Yarmuk University	University of Jordan	Oklahoma State University
University Foundation Year	1976	1982	1889
Media Center Foundation Year	1978	(Feb.) 1984	1945
Location of the Center	Engineering College Building	Two floors in a building	Library building

The Educational Technology Center at the University of Jordan was established in February, 1984.

2. The Yarmuk Educational Technology Unit is located on the first floor of the Engineering College. It is an integral unit of the Educational Research and Development Center. The Educational Technology Center at the University of Jordan occupies the first two floors in a building, the third floor is occupied by the Consultation, Technical Services and Studies Center. Both centers are run by the same director. The OSU center is located on the second floor of the library's building, but it is not an integral part of the library.

3. The number of faculty, staff, and students who are served by the three media centers are indicated in Table XXVI,

TABLE XXVI

FACULTY, STAFF AND STUDENT TOTALS FOR UNIVERSITIES WHOSE CENTERS ARE INVOLVED 1983/1984

University	Faculty	Staff	Students	Total
Yarmuk University	481	871	12394	13743
University of Jordan	508	1797	11518	13823
Oklahoma State University	1086	3909	29103	34098

4. Oklahoma State University Audiovisual Center is a member of a national consortium for film centers which meets three times a year, a member of the Association for Educational and Communication Technology, a national American organization and a member of the Oklahoma

Association for Educational Media and Technology (a branch of AECT). It also cooperates on a fee basis with public schools in the area.

On the international level YU Center is cooperating with a German University from which it received equipment grants for 750,000 German marks. The German University also has undertaken to establish a media lab to help Yarmuk media staff and faculty produce instructional programs and learning packages.

On the regional level, Yarmuk Center also cooperates with the Arab States Media Center in Kuwait. On the national level, Yarmuk Center cooperates and coordinates with the University of Jordan Center, the Ministry of Education (Educational Technology Directorate), the Jordanian Television, and the American Cultural Center in Amman.

The UJ Center cooperates and coordinates on the national level with the Yarmuk University Center, the Ministry of Education (Directorate of Educational Technology), the Japanese Embassy in Amman, the American Cultural Center in Amman and British Cultural Council in Amman.

On the regional level, the UJ center cooperates and coordinates with Arab States Media Center in Kuwait. On the international level the UJ Center cooperates with the Open University in London. Two American experts were also invited to help with consultation and training.

5. As for dissemination of media information all centers use catalogs, bulletins and other newsletters which are mailed to the faculty to inform them of the available media, equipment and services. Only Yarmuk Center uses two CCTV units to advertise available equipment and services (set up in July, 1984).

6. Available media and instructional materials are accessible to faculty, staff and students at the three centers. Differences exist in charging for services. Yarmuk Center does not charge any on-campus or off-campus services. Public schools can duplicate video and audio cassettes at Yarmuk Center free of charge.

UJ does not charge but plans to charge for future off-campus services. Both YU and UJ Centers do not allow students to check out equipment and materials.

OSU Center charges for some services and does not charge for other services. It depends on the user, where and how long he/she is going to use this service. The center has two different rates for on-campus and off-campus services.

Generally, OSU Center does not charge for AV equipment used for instruction in a campus accredited OSU course.

> Upon presentation of written faculty authorization, students may borrow equipment such as tape recorders, motion picture projectors, slide projectors and record players for university course connected presentations. There is a rental fee for all other student-use of the equipment. Films are rented for charge whether they are for course conncected use or not. Faculty, staff, and students can check out Schiller Scroggs record library in the center for a week or these may be played on equipment in the center free of charge (OSU Audio visual Handbook, pp. 6, 7).

7. Both the OSU and UJ Center directors have considerable experience, training and M.A. degrees in educational technology. YU center's director is not a specialist in educational technology.

8. Directors differ in the major responsibilities and the positions they hold (Table XXVII). OSU Center's director is only responsible for directing the AV Center, but the UJ Center director is also responsible for directing another center, the Consultation, Technical Services and Studies Center. The YU Center director is responsible

for directing a large center of which the Educational Technology unit is a constituent part.

OSU Center Director Major Responsibilities

Major Responsibility I. To provide administration and professional leadership, to manage the OSU Audiovisual Center and to provide its services in the most effective and efficient manner.

Major Responsibility II. To prepare, control and make reports to the budget and departments of the Audiovisual Center.

Major Responsibility III. To provide consultation in the field of audiovisual media utilization, acquisition, design and production, etc.

Major Responsibility IV. To create and maintain a visible, efficient and friendly support service to aid university and other publics in their educational and communicative task. (Source: pp. 1-4 Oklahoma State University, Administrative/Professional Position Questionnaire).

Major Responsibilities of the UJ Center Director

The major responsibilities of the director are stated under Article three (3) of the Educational Technology Center Instructions at the University of Jordan.

A. Contact the concerned authorities inside and outside the country to achieve the objectives of the center within the provisions of the center.

B. Suggest working plans of the Center and its programs.

TABLE XXVII

DEGREES, EXPERIENCE AND PRESENT POSITIONS OF THE DIRECTORS OF THE THREE MEDIA CENTERS INVOLVED IN THE STUDY

Center	Degrees	Experience	Present Position
YU	Ph.D. in Educational Measurement and Evaluation	8 years in teaching high school and university levels 2 years as head of the department of Education at the Yarmuk University Director of Educational Research Center at Yarmuk University since 1984 to present	Director of the Educational Research and Development Center at Yarmuk
UJ	1. Teaching Diploma 2. M.A. degree in Educational Technology - 1970 Indiana University	Teaching at secondary schools Got training in London for 3 months on Educational Television Head of Educational Television Department at the Ministry of Education-Jordan Head of School Broadcasting Service at the Ministry of Education - Jordan Started an educational technology center in the country of Kuwait Organized 18 courses, seminars, conferences on educational technology Started the Educational Technology Center at the University of Jordan	Director of the Educational Technology Center at the University of Jordan Director of the Technical Consultation Center at the University of Jordan
OSU	1. B.A. & M.A. degrees in Industrial Arts in Education (OSU) 2. Specialist degree in AV Communication (Indiana University) 3. Doctorate in Higher Education and Educational Administration (OSU)	Teaching graphic arts at high schools Director of the Audio-visual Department of Oklahoma School System (110 schools) Audio-visual production specialist 1967-1971 at OSU Director of AV Center at OSU 1971 - to the present	Director of the Audio-Visual Center at Oklahoma State University

C. Prepare a draft budget for the Center and submit it to the chairman (the university president).

D. Prepare draft agreement between the Center and concerned parties.

E. Issue printed matter and publications related to the activities of the Center.

F. Implement decisions of the council (of the center) in accordance with the law of the university, its regulations and instructions.

G. Directly supervise progress of work at the Center and direct its activities.

H. Prepare an annual report about the activities of the Center at the end of each year and any other reports which may be required by the chairman (president).

Major Responsibilities of the YU Center Director

A. To develop the teaching plans and programs at the university by evaluating them for the purpose of increasing their efficiency.

B. To develop and enrich educational knowledge through research.

C. To help educational researchers increase the efficiency and skill of those involved in educational research.

D. To supervise the activities of the center through the coordinators.

E. To promote the educational media program at the university.

(Source: Newsletter. Educational Research and Development Center, No. 1, 1983)

9. Plans are for the YU Center to occupy a new location in the permanent site of the university. A media laboratory will be established for training technicians and employees working in the educational field and to help media staff and faculty produce hardware and software.

UJ is planning to increase its available equipment. New satellite centers will be opened in the next five years.

The OSU Center is planning to open two new satellite centers. One will be at the 21st Century Center for Agriculture and Renewable Resources. The center is also planning to go into computer instruction, video disc.

10. The Educational Technology Unit (a constituent part of the Educational Research and Development Center at Yarmuk University) has no separate budget.

The UJ Center's budget was $12,500.00 in 1983/1984. Its budget for the fiscal year 1984/1985 is $137,500.00, ten times the budget of the year before.

Table XXIII indicates that OSU Center's budget also increased. In 1983/1984 it was $627,000.00, while this fiscal year (1984/1985) it is $648,000.00.

TABLE XXVIII

BUDGETS OF THE MEDIA CENTERS IN THE THOUSANDS OF DOLLARS

	Fiscal Years	
Center	1983/1984	1984/1985
YU	No separate budget	No separate budget
UJ	$12.5	$137.5
OSU	$627.	$648

11. None of the centers involved in the study were subscribing to periodicals or journals on educational technology because they depend on the univerisities libraries.

12. YU and UJ Centers receive international grants in the form of equipment and expertise from Germany and Japan.

13. YU has the most satellite media centers among all the universities involved in the study, it has five centers. OSU has two centers, but UJ has no satellite centers at all.

14. Regarding availiability of equipment and instructional materials, UJ Center has the least availability among all except for video cassettes. UJ Center has 232 video cassettes, while OSU Center has 138 video cassettes. YU center has the most, 580 video cassettes.

Table XXIX indicates that in terms of quantity OSU has the most opaque projectors (10), overhead projectors (325), 16mm projectors (140), 35mm slide projectors (275), microcomputer systems (3), audio recorders of all types (229), screens (185), 16 mm films (5240), and film splicers (3).

Table XXIX also indicates that in terms of quantity YU Center has the most CCTV units (29), 8 mm loop films (60), TV monitors (12), study carrels (69), video cassettes (580), and video cameras (4).

15. YU and UJ have one microcomputer each but they have not been used. OSU uses three computer systems for filmbooking, word processing, producing graphic images, 2x2 slides, and administrative functions.

16. OSU Center has a media lab set up for faculty to work on their own instructional materials. An instructional services assistant is available to assist and demonstrate the use of equipment.

TABLE XXIX

INVENTORY OF MOST AVAILABLE EDUCATIONAL EQUIPMENT AND MATERIALS IN THE CENTERS

Materials and Equipment	OSU	YU	UJ
Opaque projector	10	1	1
Overhead projector	325	57	1
8 mm slide projector	0	4	0
16 mm projector	140	10	1
35 mm slide projector	275	8	0
Filmstrip projector	46	2	0
Video projector	0	1	0
Video camera	2	4	1
Microcomputer systems	3	1	1
Electronic stencil copier	0	1	0
Video recorders	6	4	4
Audio duplicators	2	2	0
TV monitors	5	12	4
CCTV units	0	29	0
Mobile T.V. photography units	0	2	0
8 mm loop films	0	60	0
35 mm slides/tapes sets	32	0	0
35 mm slide sets	0	52	0
Video cassettes	138	580	232
Audio master tapes	335	257	0
Audio cassette and reel to reel recorders	229	54	1
16 mm films	5240	120	5
Screens (tripod and wall)	185	62	2
Study Carrels	0	69	0
Film splicer	3	2	0
Public address systems	15	12	0

Conclusions

Based on the analysis of the evaluation of the media programs and the preference for these programs as peceived by the media staffs and based on data obtained from YU, UJ and OSU media centers, the researcher made the following conclusions:

1. There was total agreement among YU, UJ and OSU media staffs on the nine items which were evaluated as neither weak nor strong in their programs:

   a. Commitment to the Educational Media as an Integral Part of Instruction
   b. Commitment to Financing the Educational Media Program
   c. Consultative Services in Educational Media Utilization
   d. Inservice Education in Educational Media Utilization
   e. Involvement of Media Staff in Planning
   f. Storage and Retrieval of Media
   g. Physical Facilities in New Classrooms
   h. Basis for Budget Allocations
   i. Reporting Financial Needs

No agreement was found among all the three staffs regarding the evaluation of weak and strong media program items.

2. No total agreement was found among the three media staffs in their preference for neither weak nor strong media program items. There was agreement among all the three media staffs involved in the study for the preference for the following six items to be strong in their programs:

   a. Commitment to Financing the Educational Media Program
   b. Utilization of Educational Media

c. Dissemination of Media Information,

d. Availability of Educational Media,

e. Maintenance of Media,

f. Physical Facilities in New Classrooms.

3. No preference was made for weak media program items by all staffs.

4. There was more agreement between OSU and UJ media staffs on the preference for strong media program items than between OSU and YU or between UJ and YU media staffs.

5. There was more agreement between YU and OSU media staffs on their evaluation media program items than between OSU and UJ or between UJ and YU media staffs.

6. OSU and YU media programs were generally perceived as neither weak nor strong by their media staffs.

7. There was more agreement among OSU, UJ and YU media staffs on their evaluation of their evaluation of their media programs than on their preference for the media program items.

8. OSU media program was perceived as the strongest among all the three media programs because five media items were indicated as strong and no items were indicated as weak.

9. The UJ media program was to an extent perceived weak because it was rated weak in six media program items.

10. No complaint was made by any of the media directors about shortage of personnel although OSU Center lost 12 personnel in the last 2 years.

11. The Research and Development Center (of which the Educational Technology Unit is an integral part) at Yarmuk University and Educational

Technology Center at the University of Jordan are more involved in international cooperation and coordination with educational organizations outside Jordan.

12. Oklahoma State University Audiovisual Center is not involved in any international cooperation or coordination with any educational organization.

13. All of the three centers are involved in cooperation and coordination with educational organizations on the national level.

14. None of the centers is subscribing to periodicals or journals on educational technology. Each center relies on the university's library in this respect. Centers receive free materials.

15. The Educational Research and Development Center at the Yarmuk University and the Educational Technology Center at the University of Jordan received international grants from Germany and Japan in the form of equipment. The OSU Center tends to be self-supporting because it generates revenue from its rentals and the services it renders to users. Sixty two point ninety six percent of its budget is revenue generated by services rendered.

YU and UJ Centers are not self-supporting centers. They do not generate any income because they do not charge for the services they offer to users.

16. YU and UJ media staffs believe that the attitude of the faculty towards media is the greatest deterrent to offering media services in both Jordanian university media centers.

17. The Jordanian university centers render services to the faculty, staff and students free of charge. The Yarmuk Center does not charge for any on- or off-campus services. The Jordanian University Center is

planning to charge for future off-campus services.

18. Among all the centers, the YU Center is the only center involved in educational research.

19. Among all centers only OSU Center uses computer systems for film booking, administrative functions, word processing and producing graphic images and 2x2 slides.

20. The YU Center tends to be more like a learning resource center in providing 69 study carrels equipped with video, audio recorders or 8 mm slide projectors.

21. The most efficient service units of the OSU Center are:

a. The film center

b. The photo center

22. It seems that YU and UJ Centers are mostly interested in producing and duplicating video films.

Recommendations

1. A periodic self-evaluation of media services programs should be provided for on a planned basis at all institutions of higher education.

2. Media professionals and specialists in higher education in Jordan should meet periodically to discuss common problems and interests and to coordinate their efforts to promote media services.

3. It is recommended that a faculty member with considerable training in educational media be appointed to direct the Educational Technology unit which is a constituent part of the Educational Research and Development Center at the Yarmuk University to promote the media program.

4. It is recommended that the faculty's negative attitude toward media be changed by trying to involve them in planning for the effective

use of media. More workshops, seminars and training sessions should be offered to train faculty in the use of equipment and production of instructional materials. Model mediated lessons, lectures, and demonstrations should be presented to motivate faculty to use media in their instruction. Efforts to change faculty's attitudes also should include messages directed toward faculty. These messages about the efficiency of instructional media should be supported by the findings of research.

5. Existing classrooms in institutions of higher education should be equipped for the effective use of educational media.

6. The university administration's in Jordan should be committed to providing educational media facilities and be also committed to the educational media as an integral part of curriculum and instruction.

7. It is recommended that a national Jordanian council for Educational Technology be established to take care of educational technology research, to offer consultative services in the use and purchase of educational equipment and instructional materials, to train media personnel, to draw plans for promoting effective use of media at all educational levels, to improve teaching methods by mediating instruction and to propose solutions for educational problems in Jordan.

8. It is recommended that a council of faculty and media personnel should be established in each of the involved institutions to discuss media services programs and ways of motivating faculty to use media in their instruction.

9. The findings of this study emphasize that OSU center is not involved in educational research. It is recommended that OSU Center devote a portion of its budget to sponsoring research in educational media and instructional problems since one of the goals of this center

as stated in the Oklahoma State Audio visual Handbook (1984) is:

> Working with faculty members in analyzing and evaluating instructional problems involving the use of audio visual materials and developing tehcniques and materials to achieve instructional objectives (p. I).

10. Findings of the study indicated that UJ center had not established satellite centers yet and it suffered from shortage of equipment In addition the center is still at the beginning of its second year of its age, and its services are still limited to the campus. For all the previously mentioned reasons, it is recommended that UJ center decrease its staff members (15) by one-third. Increase of the staff members should be dictated by the need in the coming years and according to the development of the center and promotion and extension of its off-campus services.

Recommendations for Future Research

1. It is recommended that a comparative study be conducted to identify the need for establishing learning resource centers at the three universities involved in the study.

2. A comparative study should be conducted to determine the factors that affect media utilization by faculty and students in higher educational institutions in Jordan and the United States.

3. A comparative study should be conducted to evaluate the adequacy of educational media services programs in higher education in Jordan and another developing country.

4. A comparative study on the administration of audiovisual services in higher education in advanced and developing countries should be conducted.

5. It is recommended that a comparative study be conducted to investigate institutions of higher education in developing and advanced countries to determine to what level the educational media program relates to instruction as an integral part of the educational process.

6. It is recommended that a study be conducted to determine the impact of different cultures and philosophies of life on the local production of educational materials.

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APPENDIX A

CRITERIA RELATING TO EDUCATIONAL MEDIA PROGRAMS IN COLLEGES AND UNIVERSITIES

Criteria Relating to Educational Media Programs in Colleges and Universities

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Criteria: Educational Media Programs In Colleges And Universities

The criteria listed below were empirically derived from two primary sources. First, many of them were derived from the literature dealing with various aspects of educational media programs. This source consisted of more than 150 articles, books, and monograms. Second, others were derived from papers written by outstanding educational media specialists representing various parts of the country. Each was given a special assignment to write a description of what was considered to be a model educational media program. They represented both large and small institutions of higher education.

Although the list is fairly comprehensive, it is not intended to be all inclusive. No claim is made for the validity of these criteria. Nevertheless, they should serve as useful guidelines for evaluating an educational media program by assisting in making subjective judgments about specific aspects of an on-going program.

I. Institutional Educational Media Services

- An institution should have a program of media services administered through an educational media center, and sub-centers if such are needed, which provide the faculty with an adequate supply of appropriate instructional materials.

- The educational media center should be an independent service unit that operates at the same level as other major institutional services.

- An institution's educational media program should provide media and services compatible with modern-day instructional technology.

- An institution's educational media program should be directed toward the improvement of instruction in a modern educational program.

- The educational media program should occupy an important position in an institution's organizational plan.

- An institution's educational media functions and services should be coordinated under a single supervisory unit, referred to in this document as an "Educational Media Center."

- An institution should have clearly defined policies, procedures, and plans for its educational media program, including immediate short-range, and long-range goals.

- An institution's administrative line and staff relationships should be such that teachers and media personnel have a sense of administrative support.

- Institutional lines of communications and responsibilities should be clearly established to define the relationship to the director of the educational media program to other staff members and to establish channels through which the director should communicate in order to realize the objectives of the media program.

- Institutional administrators should utilize the consultative assistance of national, state, or local media specialists in evaluating the media program and in planning future action.

- Liaison should be maintained with state and national public institutions or agencies to make it possible for an institution to participate in cooperative projects that enrich or stimulate the local media program.

- The philosophy of an educational media program should be congruent with the philosophy and objectives of the institution in which it exists.

- An institution should engage in a continuous evaluation of its educational media program as it relates to the instructional program.

- An institution should provide sufficient leadership and technical assistance to insure that all faculty members have easy access to appropriate educational media for all learning situations.

- Adequate channels for disseminating information about educational media and their potentialities should be maintained throughout an institution.

- Faculty members should be encouraged to experiment with educational media as a means of increasing instructional effectiveness.

- The educational media program in a multiple-purpose institution should provide media and services for a wide variety of curricula in the various specialized colleges, technical colleges, and liberal arts colleges of the university.

- Long-range institutional goals should include the development and implementation of instructional systems involving automation approaches to the flow of information and ideas.

- New classroom buildings constructed by an institution should provide for the full use of all presently owned educational media and for the installation and use of new media as such are developed and made available.

- There should be a long-range institution-wide plan which provides for the adaptation of old classrooms for effective use of educational media.

- An educational media center should be provided with adequate physical facilities for optimum service to an institution.

- Housing should be provided for the educational media services in which offices and work areas meet the normal standards of the institution for activities of a similar nature.

- An institution's educational media program should be adequately financed through an independent budget.

- The budget of an educational media program should reflect the needs of the entire institution.

- The manner in which an educational media budget is administered should be determined by clear cut institutional policies concerning allocations, income, and expenditures.

- The budget of an educational media program should be based on both the institution's long-range goals and its immediate educational needs.

- The budget of an institution's educational media program should be sufficient to support an adequate media program for optimum instructional improvement.

- There should be a sufficient number of professional media staff members to administer the educational media program and to provide consultative services to an institution's entire faculty.

- An institution should have a sufficient number of non-professional media staff members to relieve the faculty and professional media staff of all routine clerical and technical tasks.

- The director of an institution's educational media program should be directly responsible to the administrative officer in charge of academic affairs.

- An institution's educational media program should be directed by a person with an extensive professional education background who has special preparation as an educational media specialist.

II. Educational Media Services - Curriculm and Instruction

- The services and materials provided through an educational media center should be integral parts of curriculum and instruction.

- The use of educational media should be encouraged when such use contributes to the improvement of instruction.

- The faculty should be kept informed on new developments in materials, equipment, and the technology of instruction.

- Educational media personnel should participate in curriculum planning and development, and in the implementation of curriculum improvement, particularly as it relates to the integration of educational media into the total instructional process.

- The director of an educational media program should participate in policy making decisions relating to the use of educational media and with the help of well trained professional and technical assistants, provide consultative services to all institutional programs that make use of media.

- Continuous inservice education in the use of educational media should be carried on as a means of improving instruction.

- Continuous inservice education should be carried on in such areas as the selection and use of materials, experimentation with the use of new instructional devices, materials and techniques, and the importance and value of educational media in instruction.

- The faculty and the professional media staff should cooperate in planning and developing the parts of the instructional program that make provisions for the use of educational media.

- Professional educational media personnel should be readily available for consultation on research projects in which educational media are used.

- The educational media director and the professional media staff should be readily available for consultation to all institutes, workshops, conferences, etc., in which educational media are used.

- If an institution extends services to schools and agencies beyond its cmapus, the professional media personnel should be available for consultative assistance in workshops, institutes and conferences for school teachers, librarians and media personnel.

- An educational media program should include a consultation function with staff members competent to render advice to faculty, administration, staff, campus organizations, and outside agencies in the selection, acquisition, preparation, production, utilization, and evaluation of educational media.

- The administrator in charge of an educational media program should work in close cooperation with a faculty committee and/or educational media evaluation team, in periodical evaluations of the media program.

III. The Educational Media Center

- An educational media center should be organized around the concept

of offering a wide variety of services and media to all instructional and administrative units of the institution, with leadership, consultative help, and other services provided by professional media specialists and other media center personnel.

- An instructional program should be supported by an adequate supply of educational media and a system of making them accessible to the faculty and students.

- Special provisions should be made for the media support of continuing education activities such as off-campus professional courses, workshops, conferences, etc.

- An educational media center should provide such media services as procurement, maintenance, and production of appropriate educational media to support the instructional program.

- There should be a definite plan for evaluating and selecting new materials and equipment and for evaluating the effectiveness of presently owned items.

- The quantity and type of educational media necessary for effective support of an instructional program should be determined by the level of utilization of the institution's faculty.

- Educational media services to campus departments should include consultative services, acquisition of materials, storage of materials, circulation (pick-up and delivery) of materials, maintenance and inspection of materials and equipment, and dissemination of information about educational media.

- There should be definite plans for involving faculty members in continuous evaluations of the effectiveness of presently owned media.

- There should be a definite plan for replacement of worn out or obsolete equipment.

- An institution should provide centralized services for maintaining all educational media owned by the institution.

- Equipment selection and procurement should be based on recommendations of teachers, consultants, and maintenance personnel.

- All educational media should be examined and/or previewed before being purchased by the institution.

- An educational media center should provide such media as projected materials, recorded materials, graphic materials, self-instruction materials, and television kinescopes or videotapes.

- Necessary special services and equipment such as still and motion picture photography, time-lapse photography, and microphotography equipment should be provided when needed in some types of research.

- Unique materials needed for specific teaching and learning situations should be produced locally. Such media include magnetic tapes, graphics of all kinds, mountings and display boards, photo copies, overhead transparencies, films, filmstrips, slides, study prints, laminations, specialized photographic materials such as time-lapse sequences and microphotography, and special visual materials for use by administrative officials.

- An educational media center should have facilities for producing such original materials as photographs, slides, filmstrips, overhead projection materials, drawings, illustrations, cartoons, charts, maps, graphs, displays and exhibits, set and costume design, lettering, animation, models, and motion pictures.

- A production unit should have a minimum staff consisting of a director, secretary, photographer, and illustrator.

- The quantity and variety of educational media provided for the instructional program should be based on demonstrated need, availability, and utilization patterns.

- If an institution is large and complex, the primary media center should be supplemented by satellite centers. The services provided by the primary media center should be comprehensive and its services should include all those which the satellite centers are not equipped to provide. Duplication of effort should be held to a minimum.

- When educational media are available only from the primary media center they should be delivered to the point of use at regularly scheduled intervals.

- All frequently used educational media should be automatically placed in satellite centers in colleges, departments, and/or administrative units on a long-time loan when the need is established.

- Educational media should be cleaned and inspected after each use and in no case should media go for more than a year without cleaning and inspection for evidence of damage or need for replacement.

- If an institution has need for complete motion picture production services, there should be facilitites for the production of black and white or color 16mm motion picture films with optical sound, and/or 8mm black and white or color films with magnetic sound, and a motion picture laboratory should be provided for processing and printing black and white and color film.

- There should be a central photographic production service available to all departments and administrative units which produces all kinds of still photographic materials, including student identification pictures and scientific photographs.

- If an institution has need for complete recording and professional type high-speed duplication, such facilities and equipment should be made available and provisions made for duplicating tapes for radio broadcasts and for learning centers and language laboratories.

- Photographic materials production facilities and services should be available in one location with satellite facilities available where needed for the production of graphs, charts, animations, art work, transparency originals, and silk-screen plates. It may also be desirable to provide for the production of specialized materials such as medical and dental illustrations, teaching models, and scientific exhibits.

- In order to achieve a high level of utilization all educational media should be made highly accessible to each faculty member, either by delivery from the media center to the point of use, or by the establishement of satellite centers (long-time loans) in each department or building.

- Frequently used low cost media such as filmstrips, slides, and certain recorded materials should be premanently located in appropriate departments, buildings, and in some cases in the classrooms in which they are to be used.

- All media satellite centers should be adequately staffed with personnel appropriately trained for the level of performance they are expected to render.

- The central classification and cataloging system should permit rapid location of media needed for specific teaching-learning situations.

IV. Physical Facilities for Educational Media

- Housing facilities for an educational media center should be sufficient in size and arrangement to facilitate the efficiency and effectiveness of media services to all institutional functions. The facilities should provide for such specialized activities as storage, handling, maintenance, and circulation control of media.

- An educational media specialist should be consulted about specifications relating to media when plans are made for the construction of new buildings and the remodeling of old ones.

- In order to avoid having to move classes to special rooms to make use of educational media, each classroom in an institution should be equipped with essential facilities for effective use of appropriate educational media, including telecasts, projected materials, recordings, and self-instruction devices.

- Every classroom should be equipped with full light control, electrical outlets, forced ventilation, and educational media storage space.

- Every classroom hould be equipped with permenantly installed bulletin boards, chalkboards, a projection screen, and map rails as needed for instruction.

- Every classroom should have capabilities to receive audio, video, and such other electronic message forms as may be available.

- An institution that has a need for its own motion picture film processing facilities should have a processing laboratory, a printing room, a processing control room, a negative storage room with humidity control, and office space as required.

- An institution that has a need for still photographic production and processing facilities should have darkrooms, printing and finishing room, storage space, copy room, and microfilm copy room.

- All institutions should have facilities for the production of graphic materials which include a studio, drawing tables, graphic and art equipment and supplies, a silk screen production area, mechanical printing devices, and office space as required.

- The materials production services should be provided with space for the following work activities: (1) office, (2) conference room, (3) photography studio, (4) at least one darkroom, and (5) a graphics studio.

- An institution that has a need for its own film production facilities should have production stages with ceilings at least 16 feet high with lights, a shop for the production and storage of sets, sound recording rooms, an animation room, preview and conference rooms, and office space as required.

- Adequate housing should be provided for such production activities as graphic production, sound recordings, still photography, motion picture photography, television, and radio.

- Professional personnel should be provided office space with sufficient privacy for consultations and conferences.

- An educational media center should have preview rooms where educational media can be examined and evaluated.

V. Budget and Finance of the Educational Media Program

- Long-range budget planning should provide for improvements to be made gradually until the full media program goals are realized.

- An educational media program should operate from a central budget which is prepared and defended by representatives of the educational media services.

- An educational media program should be financed entirely from regularly appropriated institutional funds.

- The budget of an educational media program should be based on both the institution's long-range goals and immediate educational media needs.

- The budget of an educational media center should provide for increased scope of services, expansion of services to meet increased enrollments, and the needs created by the addition of new structures.

- There should be a definite plan for gaining student, faculty, administrative, governing board, and public support for the media program. The plan should include evaluation of the program. The plan should include evaluation of the program, determination of media needs, long and short range planning, and presenting facts about media needs to administrators and governing boards.

- All costs relating to procurement or production of materials, purchase of equipment, and employment of staff for use in the institution's program should be covered by a centralized budget.

- Faculty members should be able to use educational media from the media center without any more restrictions than those imposed on the use of similar institutional services.

- The selection of materials and equipment for purchase by the educational media center should be based on pre-determined specifications formulated by the media staff.

- An institution should have clear-cut policies concerning allocation, income, and charges against the educational media budget.

- Provision should be made in the educational media budget for the systematic replacement of obsolete or worn-out media.

- Long-range financial plans should include provisions for the expansion of media services as required by the improvement of quality and scope of the instructional program.

VI. Educational Media Staff

- Educational media personnel should work within the framework of job descriptions and policies relating to institutional media activities and these should be clear to the media administrator and the entire media staff.

- Professional educational media personnel should possess a high degree of sensitivity to the potential of educational media for improving instruction and an awareness of new developments, new techniques, new equipment and new materials.

- In institutions where needed the professional media staff should include specialists in photography, graphics, sound recording, and programmed materials, film libraries, and television staff members.

- Professional media staff members should be active in professional organizations, particularly those representing the area of their specialization.

- Professional media staff members should have advanced degrees with specialization in the media area in which they work.

- There should be at least one person in each department whose primary responsibility is supervising the departmental educational media program.

- The educational media center should have adequate personnel consisting of clerical staff, maintenance technicians, television technicians, distribution clerks, and production technicians.

- The director of the educational media program should be well grounded in general education, and should have had practical experience in teaching. The director should possess a doctors degree or its equivalent, and should have had special training in such areas as the theory of educational communication, curriculum and instructional methods, production of such materials as graphics and photography, programmed learning, research methods, administration, and supervision.

- The functions of the director of the educational media program should include: reporting the needs of the media program to the institutional administration, determining budget and financial needs, assisting in the selection, procurement, and maintenance of all materials and equipment, supervising the distribution of media, and providing consultative service to faculty, administration, and other institutional personnel.

- In order to wisely select and supervise appropriate personnel, an educational media specialist should have a thorough understanding of such technical fields as television and radio production, photography, curriculum materials production, and graphic materials production.

- An educational media specialist should be able to delineate subject matter into teachable concepts; lead the faculty in cooperatively planning the curriculum; organize a media center so that equipment and materials can be coordinated into the teaching program with dispatch. The specialist should posses administrative ability of a high order; know and be skilled in the use of evaluation techniques; and be able to operate as a research specialist.

- An educational media specialist should have skill in the care and operation of all media devices in order to ably train and supervise operators and maintenance personnel.

- An educational media specialist should be able to evaluate emerging innovations for possible introduction into instructional programs and should be able to interpret and promote those innovations that can make significant contributions to teaching and learning.

- An educational media specialist should participate by attending local, state and national educational media conferences, conventions, and workshops.

APPENDIX B

EVALUATIVE CHECKLIST: AN INSTRUMENT FOR SELF-EVALUATING AN EDUCATIONAL MEDIA PROGRAM IN COLLEGES AND UNIVERSITIES

Evaluative Checklist
An Instrument for Self-evaluating an Educational Media Program in Colleges and Universities

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INTRODUCTION

This Evaluative Checklist is especially designed for evaluation of Educational Media Programs by concerned program administrators. The checklist is designed so that it can be self-administered without extensive inventory of all resource items within the program. However, before completion of this checklist, the evaluator should be familiar with all aspects of the program such as the extent of materials and equipment, the number and qualifications of staff members, and the manner and extent of media program funding. A thorough knowledge of the "Criteria Relating to Educational Media Programs in Colleges and Universities," found at the end of the Checklist, should preceed the completion of this instrument.

The Evaluative Checklist which follows has been periodically revised from an instrument developed by W. R. Fulton.[1] The Checklist was validated and field tested through an extensive research project. Research has shown that when properly applied to a higher educational institution, it will discriminate among the varying levels of quality in educational media programs.

This Evaluative Checklist is based on research that indicates that there are fundamental elements of an educational media program which if present in sufficient quantity and quality will facilitate the improvement of instruction. The elements contained in this Checklist are assumed to be common to most educational media programs. These include: 1) administrators and teachers are committed to the proper use of educational media for instructional purposes; 2) educational media are an integral part of curriculum and instruction; 3) an educational media center is accessible to the faculty, staff, and students; 4) the physical facilities are conducive to proper use of educational media; 5) the media program is adequately financed and properly budgeted; and 6) the staff is adequate and qualified to provide for the educational media needs of the faculty, staff, and students.

An effective educational media program must be evaluated on a regular basis. The use of this Checklist should greatly facilitate such an evaluation by providing useful guidelines for making judgments on program elements.

The term "educational media" as used in this instrument means all materials and equipment used for communication in instruction. This would include areas such as: motion picture film, television, printed materials, computer-based instruction, graphic and photographic materials, sound recordings, and three-dimensional objects.

[1]The original instrument was a part of a study performed pursuant to a contract with the United States Office of Education, Department of Health, Education and Welfare, under the provisions of Title VII, Public Law 85-864 by W. R. Fulton, Professor of Education, University of Oklahoma.

EVALUATIVE CHECKLIST

This checklist uses a situation identification format which provides a means for you to compare your program to descriptive program situation statements. Four descriptions are stated for each checklist item. Provisions are made for you to identify your program as being identical to the statement, slightly stronger than the statement or slightly weaker than the statement. Research and experience with the instrument indicates that this procedure makes it possible for you to evaluate your program and arrive fairly quickly at an accurate indication of program effectiveness.

DIRECTIONS:

Mark one of the spaces at the left of the one statement which most nearly represents the situation in your school system. If a statement accurately describes your institution, mark one of the middle spaces of 2, 5, 8, or 11 to the left of that statement. If you feel that the situation at your institution is below what is described, mark one of the lower numbered spaces of 1, 4, 7, or 10, if above, mark one of the higher numbered spaces of 3, 6, 9, or 12.

IN ANY CASE MARK ONLY ONE OF THE TWELVE SPACES.

Remember, each one of the subdivisions proceded by a capital letter requires only one mark in one of the boxes numbered 1 to 12. Mark only one box in each subdivision.

EXAMPLE:

Mark only one of the twelve boxes

[1] [2] [3]	There is no director of the media program.
[4] [5] [6]	There is a part-time director of the media program.
[7] [8] [9]	There is a full-time director in charge of the media program.
[10] [11] [12]	There is a full-time director and a sufficient number of clerical and technical personnel.

I. COLLEGES AND UNIVERSITY EDUCATIONAL MEDIA SERVICES

CRITERION SUMMARY

An institution of higher education should have a program of educational media services administered through an institutional media center with an adequate supply of appropriate instructional materials. The center should be a service unit that operates at the same level as other major institutional services with clearly defined policies, procedures, and plans, including short-range, and long-range goals.

(For more detailed criteria see Part I in the CRITERIA section.)

A. Commitment to the Media Program

Mark only one of the twelve boxes

[1] [2] [3] The institution's educational media program does not offer the services of a media center and no clerical or technical staff members are available to administer the educational media program.

[4] [5] [6] The institution's educational media programs consists of services from a media center managed by clerical and technical staff members. The services are not well coordinated and no one person has been given administrative responsibility for campus-wide media activities.

[7] [8] [9] The institution's educational media program consists of a media center with clerical and technical staff. The program is directed by a staff person who has some educational media training but not enough to qualify as an educational media specialist. The director reports to the administrative officer in charge of instruction.

[10] [11] [12] The institution has an educational media program including an educational media center and necessary building media centers directed by an educational media specialist who reports directly to the administrative officer in charge of instruction. The director is provided with facilities, finances, and staff essential in meeting the media needs of the instructional program.

B. Commitment to Educational Media as an Integral Part of Instruction

[1] [2] [3] The institution provides some educational media for faculty, staff, and students, but no trained personnel are available to assist in the utilization of the educational media that are provided.

Mark only one of the twelve boxes

4 5 6 The institution provides some educational media and services for faculty, staff, and students who request them, but no attempt is made to encourage the use of the services.

7 8 9 A variety of educational media and services are generally available and some attempts are made to acquaint faculty, staff, and students with the services, and to encourage utilization of the media.

10 11 12 The institution provides the quantity and variety of educational media and services needed by faculty, staff, and students and encourages them to use media as integral part of instruction.

C. Commitment to Providing Educational Media Facilities

1 2 3 Teaching and learning spaces in use at this time have no special provisions for the use of educational media.

4 5 6 Although some new and remodeled facilities provide for the use of some types of educational media, the institution gives little attention to media utilization at the time buildings are planned.

7 8 9 The institution provides most new and remodeled buildings with light control and other facilities necessary for the use of some types of educational media.

10 11 12 All new buildings are equipped for the greatest possible use of educational media and are designed to permit adaptation for new developments in media. Old buildings are being modified as fast as possible to provide for effective use of media.

D. Commitment of Financing the Educational Media Program

1 2 3 The educational media program does not have its own specific budget.

4 5 6 Finances for the educational media program are inadequate to provide the services that faculty, staff, and students need and are prepared to use. There are no written policies relative to allocations, income sources and charges against the budget.

7 8 9 Finances for the educational media program are sufficient to maintain the status quo, but the current media services are not sufficient to meet the instructional needs. Long-range curriculum plans do not include provisions for financing needed educational media services.

Mark only one of the twelve boxes

10 11 12 The educational media program is financed entirely from regularly appropriated institutional funds. The budget reflects to some degree long-range educational media plans and includes provisions for special media for unusual curriculum problems. The budget is prepared, presented, and defended by the director of the media services in the same manner as that of any other budget unit.

E. Commitment to Staffing the Educational Media Program

1 2 3 Educational media personnel are not available to provide services to faculty, staff, and students.

4 5 6 The responsibility for educational media services is assigned to a person(s) whose primary commitment(s) are in other institutional jobs.

7 8 9 The responsibility for educational media services is delegated to a person who has had some training in educational media who is provided with limited clerical and technical assistance.

10 11 12 Leadership and consultative services are provided by an educational media specialist and a qualified professional staff. An adequate clerical and technical staff is also provided.

II. EDUCATIONAL MEDIA SERVICES - CURRICULUM AND INSTRUCTION

CRITERION SUMMARY

An institution of higher education should engage in a continuous evaluation of its educational media program as it relates to instruction. Continuous inservice education in the use of educational media should be conducted as a means of improving instruction. The faculty and the professional media staff should cooperate in planning and developing the parts of the instructional program that make provision for the use of educational media. Professional educational media personnel should be readily available for consultation on all instructional problems where media are concerned.

(For more detailed criteria see Part II in the CRITERIA section.)

A. Consultative Services in Educational Media Utilization

1 2 3 There are no educational media personnel available to provide for consultative services.

Mark only one of the twelve boxes

4 5 6 Educational media personnel render consultative assistance in the instructional application of educational media when they are asked to do so and are free from other duties.

7 8 9 Educational media personnel are usually available and utilized for consultative assistance in the use of instructional media.

10 11 12 Educational media professional personnel work, as a part of their regular assignments, with faculty, staff, and students in analyzing instructional needs in the design, selection, and use of educational media.

B. Inservice Education in Educational Media Utilization

1 2 3 No inservice education activities relating to the utilization of educational media are provided.

4 5 6 Inservice education is left entirely to departmental units and is limited to their own capabilities.

7 8 9 Professional educational media staff members are available on request to assist faculty and staff in inservice education activities relating to educational media.

10 11 12 Professional educational media staff are involved in planning and conducting continuous inservice education activities concerned with the selection, development, production, and use of all types of educational media.

C. Utilization of Educational Media

1 2 3 Faculty, staff, and students seldom use educational media.

4 5 6 Only a few faculty, staff, and students utilize educational media in class presentations.

7 8 9 Several faculty, staff, and students utilize appropriate educational media in presentations and independent study.

10 11 12 Most faculty, staff, and students use appropriate educational media in their presentations, learning activities, and independent study.

D. Involvement of the Media Staff in Planning

1 2 3 There are no professional educational media staff involved in planning for the use of educational media.

Mark only one of the twelve boxes

4 5 6 The professional educational media staff is seldom involved with faculty, staff, and students in planning for the use of educational media.

7 8 9 The professional educational media staff is occasionally involved with faculty, staff, and students in planning and producing materials for use in the instructional program.

10 11 12 The professional educational media staff is usually involved with faculty, staff, and students in planning for the use of and in experimenting with educational media in the instructional program. Faculty and staff is also regularly involved in decision making activities relating to the integration of educational media with the curriculum and instruction.

III. THE EDUCATIONAL MEDIA CENTER

CRITERION SUMMARY

Educational media centers should be organized around the concept of offering a wide variety of services and media to all instructional and administrative units of an institution, with leadership, consultative help, and other services provided by professional media specialists and other media center personnel. The instructional program should be supported by an adequate supply of educational media and a system of making them accessible to the faculty and students. The educational media center should provide such media services as procurement, maintenance, and production of appropriate educational media to support the instructional programs. Satellite centers should supplement the primary media center on larger campuses and at instructional sites remote from the main campus.

(For more detailed criteria see Part III in the CRITERIA section.)

A. Location and Accessibility of Educational Media

1 2 3 The institution does not have an educational media center and does not have access to such services.

4 5 6 The location of the primary educational media center is such that media are not accessible to most faculty, staff, and students. The educational media center is not supplemented by necessary satellite centers in campus locations.

7 8 9 The location of the primary educational media center is such that media are not readily accessible to faculty, staff, and students. The educational media center is

Mark only one of the twelve boxes

supplemented by some satellite centers that provide some media and services in addition to those provided by the primary media center.

10 11 12 The location of the primary educational media center and the presence of necessary satellite centers make media highly accessible to all faculty, staff, and students.

B. Dissemination of Media Information

1 2 3 Information concerning educational media is only obtained by special request.

4 5 6 Information concerning educational media is seldom disseminated to prospective users, and there are no definite plans or channels for such dissemination.

7 8 9 Information concerning educational media is disseminated to prospective users on an occasional basis or when requested.

10 11 12 Information concerning all educational media and programs is frequently disseminated to prospective users on a regularly scheduled basis.

C. Availability of Educational Media

1 2 3 Educational media are practically nonexistent and responsibility for obtaining media rests entirely with the user.

4 5 6 The quantity of educational media is so limited that significant delays occur between requests for media and their availability. Reservations must be made on a "first come, first served" basis, and the media must be picked up by the user.

7 8 9 The quantity of educational media and the distribution system make it possible for media to be delivered to users on relatively short notice.

10 11 12 There is a sufficient quantity of educational media and an adequate distribution system to insure the delivery of all media to users when needed.

D. Storage and Retrieval of Media

1 2 3 There are practically no media storage facilities available.

4 5 6 Media storage facilities are available but are inadequate for some types of educational media, and personnel have difficulty in locating and retrieving specific items.

Mark only one of the twelve boxes

7 8 9 The primary educational media center and all satellite centers have adequate storage for currently owned media. The retrieval system is adequate most of the time.

10 11 12 Adequate storage space, including space for future expansion, is provided in the primary educational media center and in all satellite centers. The primary educational media center has a master retrieval system for immediate location of all media.

E. Maintenance of Media

1 2 3 There is no provision for cleaning and repairing educational media.

4 5 6 Educational media are cleaned and repaired when complaints regarding their operable condition are made by users.

7 8 9 Educational media are cleaned and repaired whenever the staff has time.

10 11 12 All educational media are inspected after each use and are cleaned and repaired on a regular basis or when inspection indicates the need.

F. Production of Media

1 2 3 Practically no facilities for production are available.

4 5 6 Limited production facilities are available for faculty, staff, and students to produce their own materials.

7 8 9 Production facilities are available for faculty, staff, and students to produce their own educational materials, and some assistance is available from media personnel.

10 11 12 Production facilities are available for faculty, staff, and students to produce their own materials and media center personnel produce a wide variety of materials upon request.

IV. PHYSICAL FACILITIES FOR EDUCATIONAL MEDIA

CRITERION SUMMARY

Each classroom should be designed for and equipped with essential facilities including proper sound control, light control, electrical outlets, forced ventilation, and educational media storage space which will provide for effective use of appropriate educational media of all kinds.

(For more detailed criteria see Part IV in the CRITERIA section.)

Mark only one of the twelve boxes

A. Physical Facilities in Existing Classrooms

1 2 3 Classrooms do not accommodate effective use of educational media.

4 5 6 A few classrooms have been modified to use of educational media but no plans have been made to adapt all classrooms for the use of educational media.

7 8 9 Most classrooms have been at least partially equipped for the use of educational media, and there are plans for equipping all classrooms.

10 11 12 All classrooms have been equipped for optimum use of all types of educational media.

B. Physical Facilities in New Classrooms

1 2 3 The use of educational media is not considered when new classrooms are planned and contstructed.

4 5 6 Some new classrooms are provided with physical facilities such as light control and electrical outlets, but only in special cases are provisions made for the use of a wide variety of media.

7 8 9 Most new classrooms are provided with physical facilities that make possible optimum use of educational media.

10 11 12 All new classrooms are designed for and equipped with physical facilities that make possible optimum use of all types of educational media.

V. BUDGET AND FINANCE OF THE EDUCATIONAL MEDIA PROGRAM

CRITERION SUMMARY

A specific budget for financing the educational media program should be based on both the institution's long-range goals and immediate educational needs. The budget should reflect a recognition of long-range goals, and be sufficient to support an adequate media program for optimum instructional improvement.

(For more detailed criteria see Part V in the CRITERIA section.)

Mark only one of the twelve boxes

A. Development of Media Budget

[1] [2] [3] There is no provision for the development of a separate educational media budget.

[4] [5] [6] Funds used for educational media operations are taken from other parts of the institution's budget.

[7] [8] [9] The budget of the educational media program reflects most of the media needs of the institution.

[10] [11] [12] The budget of the educational media program reflects the media needs of the entire institution and is developed by the professional media staff in consultation with financial officers, principals and other school administrators.

B. Basis for Budget Allocations

[1] [2] [3] The budget does not usually contain an allotment for educational media.

[4] [5] [6] The educational media budget is based on an arbitrary allotment of funds irrespective of need.

[7] [8] [9] The educational media budget is based almost entirely on immediate needs, though some consideration is given to long-range goals.

[10] [11] [12] The educational media budget is based on both the immediate needs and the long-range goals of the institution and reflect clear-cut policies concerning allocation, income sources, and budget practices.

C. Reporting Financial Needs

[1] [2] [3] The financial needs of the educational media program are almost never reflected in the budget and are never reported to the administrative officer.

4 5 6 The financial needs of the educational media program are reported to the administrative officer in charge of instruction only when immediate expenditures are urgently needed.

7 8 9 The financial needs of the educational media program are regularly reported to the administrative officer in charge of instruction.

10 11 12 Regular reports reflecting the status and needs of the educational media program, including facts about inventory, facilities, level of utilization, and effectiveness of the media program, are made to the administrative officer in charge of instruction.

VI. EDUCATIONAL MEDIA STAFF

CRITERION SUMMARY

The educational media program should be directed by a qualified full-time media specialist who is provided with sufficient professional, clerical, and technical staff to provide adequate media services to the entire institution.

(For more detailed criteria see Part VI in the CRITERIA section.)

A. Campus Wide Media Staff

Mark only one of the twelve boxes

1 2 3 No person has been assinged to direct the educational media program.

4 5 6 A staff person has been assigned to direct the media program but functions more as a clerk and a technician than as a professional.

7 8 9 A professional media person with some special media training directs the educational media program and has some professional, clerical and technical assistance who are primarily oriented toward the mechanical and technical aspects of the program.

10 11 12 The educational media program is directed by a qualified media specialist who is provided with sufficient professional, clerical, and technical staff to provide adequate media services. Professional media staff members are oriented toward curriculum and instruction.

B. Satellite Center Media Staff (answer only if your institution has satellite centers)

Mark only one of the twelve boxes

[1] [2] [3] Satellite media centers, have no staff assigned to render media serivces.

[4] [5] [6] Satellite media centers have some staff available to render media services but they have no released time from other jobs.

[7] [8] [9] Satellite media centers have professional staff assigned with some released time to render media services, but there is not sufficient clerical and technical assistance.

[10] [11] [12] Each satellite media center is served by at least one full-time media specialist. Sufficient professional, clerical, and technical staff are provided to render services needed by the campus or academic area served by the satellite media center.

APPENDIX C

PREFERENCE CHECKLIST: AN INSTRUMENT FOR DETERMING PREFERENCE FOR AN EDUCATIONAL MEDIA PROGRAM IN COLLEGES AND UNIVERSITIES

PREFERENCE CHECKLIST

The Preference Checklist is designed similar to the Evaluative Checklist. The function of this checklist is to obtain from the individual evaluator his preference for the educational media services center program in his university or college. Four descriptions are stated for each preference item. Provisions are made for you to identify the program you desire as being identical to the statement, slightly stronger than the statement, or slightly weaker than the statement.

DIRECTIONS:

Mark one of the spaces at the left of the one statement which most nearly represents the situation you desire in your school system. If a statement accurately describes your desire, mark one of the middle spaces of 2, 5, 8, or 11 to the left of that statement. If you feel that the statement is too strong and should be below what is described, mark one of the lower numbered spaces of 1, 4, 7, or 10, if too weak, mark one of the higher numbered spaces of 3, 6, 9, or 12.

IN ANY CASE MARK ONLY ONE OF THE TWELVE SPACES.

Remember, each one of the subdivisions preceded by a capital letter requires only one mark in one of the boxes numbered 1 to 12. Mark only one box in each subdivision.

EXAMPLE:

Mark only one of the twelve boxes

[1]	[2]	[3]	A director of the media program is not needed.
[4]	[5]	[6]	There should be a part-time director of the media program.
[7]	[8]	[9]	There should be a full-time director in charge of the media program.
[10]	[11]	[12]	There should be a full-time director and sufficient number of clerical and technical personnel.

I. COLLEGES AND UNIVERSITIES EDUCATIONAL MEDIA SERVICES

A. Commitment to the Media Program

Mark only one of the twelve boxes

[1] [2] [3] The institution's media program should not offer the services of a media center and no clerical or technical staff members should be available to administer the educational media program.

[4] [5] [6] The institution's media program should consist of services from a media center managed by clerical and technical staff members. The services need not be well coordinated and no one person need be given administrative responsibility for campus-wide media activities.

[7] [8] [9] The institution's media program should consist of a media center with clerical and technical staff. The program should be directed by a staff person who has some educational media training but not enough to qualify as an educational media specialist. The director should report to the administrative officer in charge of instruction.

[10] [11] [12] The institution should have an instructional media program including an educational media center and necessary building media centers directed by an educational media specialist who reports directly to the administrative officer in charge of instruction. The director should be provided with facilities, finances, and staff essential in meeting the media needs of the instructional program.

B. Commitment to Educational Media as an Integral Part of Curriculum and Instruction

[1] [2] [3] The institution should provide some educational media for faculty, staff, and students, but no trained personnel need be available to assist in the utilization of the educational media that are provided.

[4] [5] [6] The institution should provide some educational media and services for faculty, staff, and students who request them, but no attempt need be made to encourage the use of the services.

[7] [8] [9] A variety of educational media and services should be generally available and some attempts should be made to acquaint faculty, staff, and students with the services, and to encourage utilization of the media.

Mark only one of the twelve boxes

[10] [11] [12] The institution should provide the quantity and variety of educational media and services needed by faculty, staff, and students and encourage them to use media as integral parts of instruction.

C. Commitment to Providing Educational Media Facilities

[1] [2] [3] Teaching and learning spaces in use at this time need no special provisions for the use of educational media.

[4] [5] [6] Although some new and remodeled facilities provide for the use of some types of educational media, the institution should give little attention to media utilization at the time buildings are planned.

[7] [8] [9] The institution should provide most new and remodeled buildings with light control and other facilities necessary for the use of some type of educational media.

[10] [11] [12] All new buildings should be equipped for the greatest possible use of educational media and should be designed to permit adaptation for new developments in media. Old buildings should be modified as fast as possible to provide for effective use of media.

D. Commitment to Financing the Educational Media Programs

[1] [2] [3] The educational media program should not have its own specific budget.

[4] [5] [6] Finances for the educational media program need not totally provide the services that faculty, staff and students need and are prepared to use. There is no need for written policies relative to allocations, income sources and charges against the budget.

[7] [8] [9] Finances for the educational media program should be sufficient to maintain the status quo, but the current media services need not be sufficient to meet the instructional needs. Long-range curriculum plans need not include provisions for financing needed educational media services.

[10] [11] [12] The educational media program should be financed entirely from regularly appropriated school funds. The budget should reflect to some degree long-range educational media plans and include provisions for special media for unusual curriculum problems. The budget should be prepared, presented, and defended by the director of the media services in the same manner as that of any other budget unit.

E. Commitment of Staffing the Educational Media Programs

[1] [2] [3] Educational media personnel need not be available to provide services to faculty, staff, and students.

[4] [5] [6] The responsibility for educational media services should be assigned to a person(s) whose primary commitment(s) is in other institutional jobs.

[7] [8] [9] The responsibility for educational media services should be delegated to a person who has had some training in educational media who is provided with limited clerical and technical assistance.

[10] [11] [12] Leadership and consultative services should be provided by an educational media specialist and a qualified professional staff. An adequate clerical and technical staff should also be provided.

Mark only one of the twelve boxes

II. EDUCATIONAL MEDIA SERVICES - CURRICULUM AND INSTRUCTION

A. Consultative Services in Educational Media Utilization

[1] [2] [3] There is no need to have educational media personnel available to provide for consultative services.

[4] [5] [6] Educational media personnel should render consultative assistance in the instructional application of educational media when they are asked to do so and are free from other duties.

[7] [8] [9] Educational media personnel should be available and utilized for consultative assistance in the use of educational media.

[10] [11] [12] Educational media professional personnel should work, as part of their regular assignments, with faculty, staff, and students in analyzing instructional needs in the design, selection, and use of educational media.

B. Inservice Education in Educational Media Utilization

[1] [2] [3] Inservice education activities relating to the utilization of educational media is needed.

[4] [5] [6] Inservice education should be left entirely to building instructional units and should be limited to their own capabilities.

[7] [8] [9] Professional educational media staff should be available on request to assist faculty and staff in inservice education activities relative to the use of educational media.

Mark only one of the twelve boxes

10 11 12 Professional educational media staff should be involved in planning and conducting continuous inservice education activities concerned with the selection, development, production, and use of all types of educational media.

C. Utilization of Educational Media

1 2 3 Faculty, staff, and students should seldom use educational media.

4 5 6 Only a few faculty, staff, and students should utilize educational media in class presentations.

7 8 9 Several faculty, staff, and students should utilize appropriate educational media in presentations and independent study.

10 11 12 Most faculty, staff, and students should use appropriate educational media in their presentations and independent study.

D. Involvement of the Media Staff in Planning

1 2 3 Professional instructional media/learning resource center staff should not be involved in planning for the use of educational media.

4 5 6 The professional instructional media/learning resource center staff should have limited involvement with faculty, staff, and students in planning for the use of educational media.

7 8 9 The professional instructional media/learning resource center staff should occasionally be involved with faculty, staff, and students in planning and producing materials for use in the instructional program.

10 11 12 The professional instructional media/learning resource center staff should be involved with faculty, staff, and students in planning for the use of an in experimenting with educational media in the instructional program. Faculty and staff should also be involved in decision-making activities relating to the integration of educational media with the curriculum and instruction.

III. THE EDUCATIONAL MEDIA CENTER

A. Location and Accessibility of Educational Media

1 2 3 The institution does not need an instructional media center and does not need access to such services.

Mark only one of the twelve boxes

[4] [5] [6] The location of the primary educational center need not be accessible to most faculty, staff, and students. The instructional media center need not be supplemented by necessary satellite centers in campus locations.

[7] [8] [9] The location of the primary educational media center should be readily accessible to faculty, staff, and students. The educational media center should be supplemented by some satellite centers that provide some media and services in addition to those provided by the primary media center.

[10] [11] [12] The location of the primary educational media center and the presence of necessary satellite centers should make media highly accessible to all faculty, staff, and students.

B. Dissemination of Media Information

[1] [2] [3] Information concerning educational media should only be obtained by special request.

[4] [5] [6] Information concerning educational media should seldom be disseminated to prospective users, and there is no need for definite plans or channels for such dissemination.

[7] [8] [9] Information concerning educational media should be disseminated to prospective users on an occasional basis or when requested.

[10] [11] [12] Information concerning all educational media and programs should be disseminated to prospective users on a regularly scheduled basis.

C. Availability of Educational Media

[1] [2] [3] Educational media should not be available. The responsibility for obtaining media should rest entirely with the user.

[4] [5] [6] The quantity of educational media should be limited. Reservations should be made on a "first come, first served" basis, and the media should be picked up by the user.

[7] [8] [9] The quantity of educational media and the distribution system should make it possible for media to be delivered to users on relatively short notice.

[10] [11] [12] There should be a sufficient quantity of educational media and an adequate distribution system to insure the delivery of all media to users when needed.

Mark only one of the twelve boxes

D. Storage and Retrieval of Media

[1] [2] [3] Media storage facilities are not needed.

[4] [5] [6] Media storage facilities should be available but need not be adequate for all types of educational media, and personnel should not have difficulty in locating and retrieving specific items.

[7] [8] [9] The school educational media center and all building centers should have adequate storage for currently owned media. The retrieval system should be adequate most of the time.

[10] [11] [12] Adequate storage space, including space for future expansion, should be provided in the school educational media center and in all building centers. The school educational media center should have a master retrieval system for immediate location of all media.

E. Maintenance of Media

[1] [2] [3] Provision for clearning and repairing educational media is not necessary.

[4] [5] [6] Educational media should be cleaned and repaired when complaints regarding their operable condition are made by users.

[7] [8] [9] Educational media should be cleaned and repaired whenever the staff has time.

[10] [11] [12] All educational media should be inspected after each use and should be cleaned and repaired on a regular basis or when inspection indicates the need.

F. Production of Media

[1] [2] [3] Facilities for production are not needed.

[4] [5] [6] Limited production facilities should be available for faculty, staff, and students to produce their own materials.

[7] [8] [9] Production facilities should be available for faculty, staff, and students to produce their own educational materials, and some assistance should be available from media personnel.

[10] [11] [12] Production facilities should be available for faculty, staff, and students to produce their own materials and media center personnel should produce a wide variety of materials upon request.

IV. PHYSICAL FACILITIES

A. Physical Facilities for Educational Media

[1] [2] [3] Classrooms need not accommodate effective use of educational media.

[4] [5] [6] A few classrooms have been modified for use of educational media but no plans need to be made to adapt all classrooms for the use of educational media.

[7] [8] [9] Most classrooms have been at least partially equipped for the use of educational media, and there should be plans for equipping all classrooms.

[10] [11] [12] All classrooms should be equipped for optimum use of all types of educational media.

B. Physical Facilities in New Classrooms

Mark only one of the twelve boxes

[1] [2] [3] The use of educational media need not be considered when new classrooms are planned and constructed.

[4] [5] [6] Some new classrooms are provided with physical facilities such as light control and electrical outlets, but only in special cases should provisions be made for the use of a wide variety of media.

[7] [8] [9] Most new classrooms should be provided with physical facilities that make possible optimum use of educational media.

[10] [11] [12] All new classrooms should be designed for and equipped with physical facilities that make possible optimum use of all types of educational media.

V. BUDGET AND FINANCE OF THE EDUCATIONAL MEDIA PROGRAM

A. Development of the Media Budget

[1] [2] [3] Provision for the development of a separate educational media budget is not needed.

[4] [5] [6] Funds used for educational media operations should be taken from other parts of the school budget.

[7] [8] [9] The budget of the educational media program should reflect most of the media needs of the school.

[10] [11] [12] The budget of the educational media program should reflect the media needs of the entire school and should be developed by the professional media staff in consultation with financial officers, principals and other school administrators.

B. Basis for Budget Allocations

1 2 3 The budget should not contain an allotment for educational media.

4 5 6 The educational media budget should be based on an arbitrary allotment of funds irrespective of need.

7 8 9 The educational media budget should be based almost entirely on immediate needs, though some consideration should be given to long-range goals.

10 11 12 The educational media budget should be based on both the immediate needs and the long-range goals of the school and should reflect clear-cut policies concerning allocation, income sources, and budget practices.

C. Reporting Financial Needs

Mark only one of the twelve boxes

1 2 3 The financial needs of the instructional media program need not be reflected in the budget and should not be reported to the administrative officer.

4 5 6 The financial needs of the educational media program should be reported to the administrative officer in charge of instruction only when immediate expenditures are urgently needed.

7 8 9 The financial needs of the educational media program should be reported to the administrative officer in charge of instruction.

10 11 12 Regular reports reflecting the status and needs of the educational media program, including facts about inventory, facilities, level of utilization, and effectiveness of the media program, should be made to the administrative officer in charge of instruction.

VI. EDUCATIONAL MEDIA STAFF

A. Campus-wide Media Staff

1 2 3 No person need be assigned to direct the media program.

4 5 6 A staff person should be assigned to direct the media program but should function more as a clerk and a technician than as a professional.

7 8 9 A professional media person with some special media training should direct the educational media program and should have some professional, clerical and technical assistants who are primarily oriented toward the mechanical and technical aspects of the program.

Mark only one of the twelve boxes

10 11 12 The educational media program should be directed by a qualified media specialist who should be provided with sufficient professional, clerical and technical staff to provide adequate media services. Professional media staff members should be oriented toward curriculum and instruction.

B. Satellite Center Media Staff (Answer only if your institution has satellite centers.)

1 2 3 No satellite media centers should have a designated staff member assigned to coordinate media activities.

4 5 6 Satellite media centers should have some staff available to render media service.

7 8 9 Satellite media centers should have professional staff assigned with some released time to render media services, but there is not sufficient clerical and technical assistance.

10 11 12 Each satellite media center should be served by at least one full time media specialist. Sufficient professional, clerical and technical staff are provided to render services needed by the campus or academic area served by the satellite media center.

APPENDIX D

A DIRECTORY OF INTERNATIONAL AND REGIONAL CENTERS INVOLVED IN EDUCATIONAL TECHNOLOGY

International Centers of Activity

1. International Bureau of Education (IBE), Palais Wilson, 1211, Geneva 14, Switzerland.

2. International Center for Advanced Technical and Vocational Training, Via Ventimiglia 201, 10127 Turin, Italy.

3. International Telecommunication Union, Place des Nations, CH-1211 Geneva 20, Switzerland.

4. UNCTAD/GATT, Training Programme, Office for Inter-regional and Training Activities, Division of Technical Cooperation, International Trade Center, 4 route des Morillons, CH-1211 Geneva 22, Switzerland.

5. UNESCO Institute for Education, Feldbrunnestrasse 58, D 2000 Hamburg 13, Federal Republic of Germany.

6. UNICEF Headquarters and Regional Offices, Project Support Communications Service, Information Division, 866 United Nations Plaza, New York, NY 10017, USA. (Contact Senior UNESCO Adviser to UNICEF, Focal Point, Educational Techology.

7. United Nationals Radio and Visual Services, OPI, New York, NY 10017, USA.

8. UNRWA/UNESCO Department of Education, UNRWA Headquarters, Immowest Building, Storchengasse I, A-1150 Vienna, Austria.

9. World Health Organization, 1200 Geneva 27, Switzerland.

10. United Nations Development Programme, One United Nations Plaza, New York, NY 10017, USA.

11. Vision Habitat (United Nations Visual Information Program), 2075 Westbrook Mall, Vancouver, BC V6T 1WS, Canada.

12. Clearinghouse on Development Communication, 1414 22nd Street NW, Washington, DC 20037, USA.

13. International Congress for Individualized Instruction (ICI), School of Education, Syracuse University, Syracuse, NY 13210, USA.

14. International Cooperative Alliance, Cooperative Education Materials Advisory Service (CEMAS), 11 upper Grosvenor Street, London W1X 9PA, UK.

15. International Council for Educational Development (ICED), 680 Fifth Avenue, New York, NY 10019, USA.

16. International Council for Educational Media (ICEM), The Secretariat, 29 rue d'Ulm, 75230 Paris, Cedex 05, France.

17. International Film and Television Council, 1 rue Miollis, 75732 Paris, Cedex 15, France.

18. International Institute of Instructional Technology (IIIT), US International University, 10455 Pomerado, San Diego, CA 92131, USA.

Regional Centers of Activity

1. The Demonstration Center for Educational Technology, The UNESCO Regional Office for Education in Africa (BREDA), BP 311, Dakar, Senegal.

2. Union of National Radio and Television Organizations of Africa (URTNA), Secretariat General, 101 rue Carnot, BP 3237, Dakar, Senegal.

3. (APEID) Asian Program of Educational Innovation for Development, UNESCO Regional Office for Development (ACEID), UNESCO Regional Office for Education in Asia, 920 Sukhumvit Road, P.O. Box 1425, Bangkok, Thailand.

4. European Association of Manufactureres and Distributers of Educational Materials, Jägerstrasse 5, 4058 Basle, Switzerland.

5. The European Home Study Council (EHSC), c/o Keith Rawson-Jones, Honorary Secretary, Research and Development Committee, 44 Hendham Road, London SW17 7DQ.

6. The Arab States Educational Technology Center (Affiliate of the Arab League Education, Cultural and Scientific Organization, ALECSO).

APPENDIX E

INTERVIEW QUESTIONNAIRE

Introduction

The researcher interviewed the directors of the three media centers involved in the study. Interviews were conducted in English and were taped on audio-tapes. Every director was asked the following thirty questions, but this does not mean that other questions were not also raised by the interviewer during the interviews. Introduction to each interview is not included.

Questions

1. Could you please introduce yourself, name, age, experience, degrees and professional training?
2. When was your center established?
3. What are the major goals for establishing this center?
4. What problems in your opinion, impede offering services to faculty, staff, and students?
5. What are the major activities of this center?
6. What solutions do you suggest for such problems?
7. Does the center offer in-service education programs? To whom?
8. Do you have written job specifications?
9. What is the number of employees in the center? Full time and part time employees?
10. Do you think this number is adequate, or do you want more employees?
11. What sort of employees do you need most?
12. Does the center use particular criteria standards for the selection and purchase of new equipment and instructional materials?
13. Do you consult with the faculty or the staff regarding selection and purchase of materials?
14. How do you consider this center? Is it an integral part of the library? Or is it a completely independent unit?
15. Is the building, meaning this place, appropriate for your center?

16. Do you disseminate printed materials such as bulletins or guidebooks about this center and its services?

17. Is the center given any publicity by the university newspaper, or any other media?

18. Does the center have its own independent budget? What are the sources of the budget? What is the total budget for this scholastic year (1984-85) for instance?

19. Is there a sort of coordination or cooperation between your AV center and any other university media centers inside or outside the country?

20. What instructional materials or programs do you produce?

21. What kind of services do you offer to students, faculty and community (free of charge)?

22. What services are provided for a fee?

23. What about maintenance? Does the center do all the maintenance and repair?

24. Is the center subscribing to periodicals or journals on educational technology? Please mention them.

25. What growth plans exist for the center for the next five years?

26. What materials and equipment do you allow to be checked out by faculty, by staff, by students, by public?

27. What relations are there between your center and the schools in this area?

28. What educational technological conferences does this center regularly attend?

29. What help does your staff offer to people using media center materials and equipment?

30. Does your center conduct any research on educational technology and teaching methods?

APPENDIX F

SOME EXTRACTS FROM THE INTERVIEWS THE RESEARCHER CONDUCTED WITH THE PARTICIPANT CENTERS

Director, Educational Research and Development Center
Yarmuk University

My name is Derar Jaradut, age 35, hold a Ph.D. degree in measurement and evaluation with special emphasis on research design, statistic and measurement theory.....

The AV center was established in 1978 as a small unit affiliated with the Department of Education at that time, and then new equipment were added and the center now is a unit in the Educational Research and Development Center.....

When the unit was established the basic purpose for its establishment was to provide services for faculty members and teaching aids using different materials producing some instructional materials and things of that type. Now we are looking for developing a unit for production in the center, and we hope this unit will serve the university as well as the community and specifically the Ministry of Education schools.....

For the time being the center supervises a lot of activities in the university like I said. One part is to service teaching and the classroom like providing the faculty members with overhead projectors, transparencies and things of this type.....

Now we are producing some films about the university and some instructional films that would serve different courses, and I hope that we will extend this service to at least to build partially the library for the center.....

Well, I think one basic problem is the unawareness of the faculty members at this university of what type of services the center can provide. We are in the process of trying to advertise by different means what kind of services, what kind of materials we have to every faculty member at the university.....

I think we can expand training sessions in a better format and to try continuously to sell new ideas to the faculty members. For students we face the problem that most of the film they come to see at the center are usually using an English script. So recently we asked the Jordanian Television to provide us with the translated educational films they have.....

I think the main solution to this problem is to try to motivate faculty members to convince them of what the center can do and how it can help teaching and how it can reduce the burden of teaching.....

Now we are in the process of negotiating an agreement with the German Government to build a new unit, which we call a media lab...,

The university is in the process of installing its main frame computer and I think we are going to get some terminals.....

I don't think the problem is the publicity problem. I think everybody in the university is aware that there is center, there is equipment, carrels and staff.....

The Jordanian University Media Center is new I guess. There is one type of coordination between us and them. They are still in the process for establishing the center. However, a group from Jordan University visited the center three months ago and tried to get information about the equipment we have, the services we offer and the problems we face. They got some practical ideas about how the center should be. Just one example, they said they bought a camera for 30,000 JD's which is only used by very professional staff in TV station meanwhile a camera of 1,000 JD's will do the job as well.....

We have an agreement with a German university. We have a visiting professor from there. He will start coming once or twice a year to the Center to provide some consultation.....

I have a stand about production. It's good to produce your materials but sometimes probably much cheaper to purchase these materials. We produce slides, films and transparencies.....

Well, I feel that the services of the Center should be advertised in a better form and something has to be done about how faculty members can better make use of the whole thing. We don't face a problem in shortage of equipment.....

Director, Educational Technology Center
University of Jordan

My name is Anwar Alabid. I am the director of this center. I am graduated from United States, from Indiana University in the field of Educational Technology, exactly instructional system technology in 1970. Before that I was working as head of Educational Television section in the Ministry of Education and head of School Broadcasting Service section in the Ministry of Education. Then I got some training in Britain. I went for three months to study Educational Television. I started my work in the field of Educational Technology beginning 1968. Then after that I went to the United States to study instructional Technology and when I came back I worked in the Ministry of Education as director of Educational Television Department. Then I worked in Arab League for Education, Culture and Science Organization (ALECSO), and I established Educational Technology Center in Kuwait.....

And I remember I was able to organize more than 18 courses and seminars in this field for different levels.....

Then I was asked to establish this center the Educational Technology Center in the beginning of 1984.

Before the center was established, there was a project and a committee to study the project to establish this center. And I was one member in this committee. And myself because I have the experience in

the field of educational technology I was asked to put all the project myself. Then the president of the university asked me to be the director of this center, and I am the first director of this center.....

After we put the project, there were instructions for the Educational Technology Center. According to these instructions the center was established. There are many articles in these instructions. Article three (3) we say: The center is considered one of the units of the university and is connected with the president. Article four (4) we say: The center takes part in developing the process of learning and teaching at the University by following modern methods for planning, developing and arranging programs as well as using modern educational equipment. This includes the following fields.....

Till now we don't have all equipment for the center. We are waiting to receive from the Japanese government studio equipment and different equipment, you know, to use them for all our purposes in the university. Till now we don't receive them yet. We have now TV unit. We use it from time to time to take some of the main activities of the university.....

The center is independent unit in the university. We report directly to the president of the university. We have our own budget.....

Now we have circulation. Myself as director of the center made that circulation for all the faculties (colleges) of the university. It is not allowed for any faculty (college) to buy equipment without asking the director of the center.....

We don't care about the cost. We care about the quality of equipment. How this equipment is going to serve the university.....

One of our main objectives in this center to produce materials, programs, learning packages and to provide all faculty members from time to time with these materials to use them in the teaching process, how to improve the teaching/learning process. This is what we hope in the future.....

Director, Audiovisual Center
Oklahoma State University

My name is Woodfin Harris. I have started out in education in teaching in a junior senior high school. I had been teaching graphic arts. From there I went back to a school in Indiana and finished a specialist degree in audiovisual communications. On finishing that degree I came back to Oklahoma City and became a director of audiovisual for the whole state of Oklahoma school system which at that time had a hundred and ten schools on the system. After three years, I had the opportunity to come to OSU.....

As I arrived here, I came here as an audiovisual production specialist. The university just purchased overhead projector for every classroom, but they did not have much use. So my job was to work with the faculty and the staff and show them how to make the overhead transparencies and get them to use the overhead. From that it developed

into where I became the director of the AV Center back in 1971.....

My education, of course, I have a bachelor degree from OSU and a Masters from OSU. From there I went back to Indiana University and picked up a specialist degree and then on my return to OSU while working here I finished Ed.D. in higher education.....

Right not our objectives is to support the academic and research programs and even extension programs that go off-campus with a variety of audiovisual services and some materials and other types of support we can provide to these different programs. Our main thrust is of course to support instruction here on campus, the classroom instruction. Now we do also work with some of the public schools around us and support them with equipment and maintenance. But the main support off-campus goes in terms of our film center. We have a film center that has over five thousand titles. We rent them out to public schools and to anyone who wants to use them.....

Well, the present problems, the past two years we had budget problems. We have had to drop a number of people from our personnel. We dropped almost twelve people in the last two years. Our problem right now is to try to get our budget in our departments built up again.....

Yes, we have a handbook of audiovisual materials and services. It is made for our faculty and staff. We usually update that every other year and every faculty and staff member should have a copy of it.....

There is no what you might call interlibrary loan between AV centers. Right now we are working through our state audiovisual organizations.....

We only produce slidetape presentations. We can produce audiotapes, no problem.....

The community can rent films, they can rent projectors. They use the audio, studio any of these things for rates.....

.....We will get into computer instruction and we want to get into some of the video disc.....

APPENDIX G

THE GOALS OF THE MEDIA CENTERS INVOLVED IN THE STUDY

THE GOALS OF THE RESEARCH AND EDUCATIONAL DEVELOPMENT CENTER

(Source: Newsletter, Educational Research and Development Center, Issue No. 1, September 1983)

There are many goals for the Educational Research and Development Center, which aim at developing and achieving the educational process. The main objectives may be summerized as follows:

- Investigating the best means for achieving the educational aims.

- Co-operation with the Ministry of Education to solve educational problems in Jordan.

- Developing the teaching plans and programs at the university by evaluating them for the purpose of increasing their efficiency in achieving the objectives of the lecturer's course of study.

- Developing and enriching educational knowledge through research.

- Participating in the efforts of Arab Countries to develop the educational process and achieve its goals.

- Spreading educational knowledge.

- Using the various types of educational technology efficiently and purposefully to improve the teaching/learning process and solve its problems, and to produce educational material. The Educational Technology Unit was established for this purpose.

- Helping educational researchers and increasing the efficiency and skill of those involved in educational research.

OBJECTIVES OF ETC

(Source: Educational Technology Center, University of Jordan, 1984)

ETC is seeking to attain the following objectives:

1. Develop the educational process at the university level, and implement modern instruction procedures for various faculties by utilizing educational equipment, materials, and programmes within a complementary framework.

2. Provide the opportunity for the maximum number of students to gain individualized instruction by utilizing educational equipment and corresponding programmes.

3. Enable the university to accept greater number of students and employ up-to-date methods in teaching them.

4. Enable the university to expand its higher studies programmes and to accept some graduates from foreign universities who desire to ameliorate their qualifications in their field of specilization.

5. Provide opportunity for lecturers at the university to receive training in utilizing modern teaching/learning processes.

6. Orient specialized experts in the area of educational technology in the fields of designing and managing educational programmes, in utilizing educational equipment and in producing essential materials and kits for that purpose. Thus, a greater number of specialists could be made available to work in the field of educational technology and to provide services for educational establishments.

7. Produce educational materials and programmes tailored according to the university curriculae, and provide them to the lecturers in the various faculties.

8. Keep abreast of innovations in the field of educational technology, and conduct research and studies to keep concerned individuals informed of the latest and most effective developments in the teaching/learning processes.

9. Offer technical consultation and specialized expertise in the field of educational technology to the interested parties inside Jordan and abroad.

MISSION

(Source: Audiovisual Center Utilization Handbook, Oklahoma State University, 1984)

The Oklahoma State University Audiovisual Center is responsible for a variety of professional, creative, and service obligations which involve the support of instructional, extension, research, and related programs of the University. The Oklahoma State University Audiovisual Center mission includes:

- Working with faculty members in analyzing and evaluating instructional problems involving the use of audiovisual materials and developing techniques and materials to achieve instructional objectives.

- Preparing materials required for instructional use.

- Operating a service program to provide, circulate and maintain audiovisual equipment and materials for university programs.

- Cooperating with colleges and departments of the university in organizing, equipping and maintaining audiovisual facilities and resources.

- Planning and maintaining facilities for university-wide use of audio-visual materials including space, facilities and equipment in university buildings, both existing and being planned.

- Providing for the collection and dissemination of information pertaining to newer audiovisual media.

- Consulting and advising colleges and departments in the purchase of specialized audiovisual equipment and materials.

APPENDIX H

ORGANIZATION OF THE MEDIA CENTERS INVOLVED IN THE STUDY

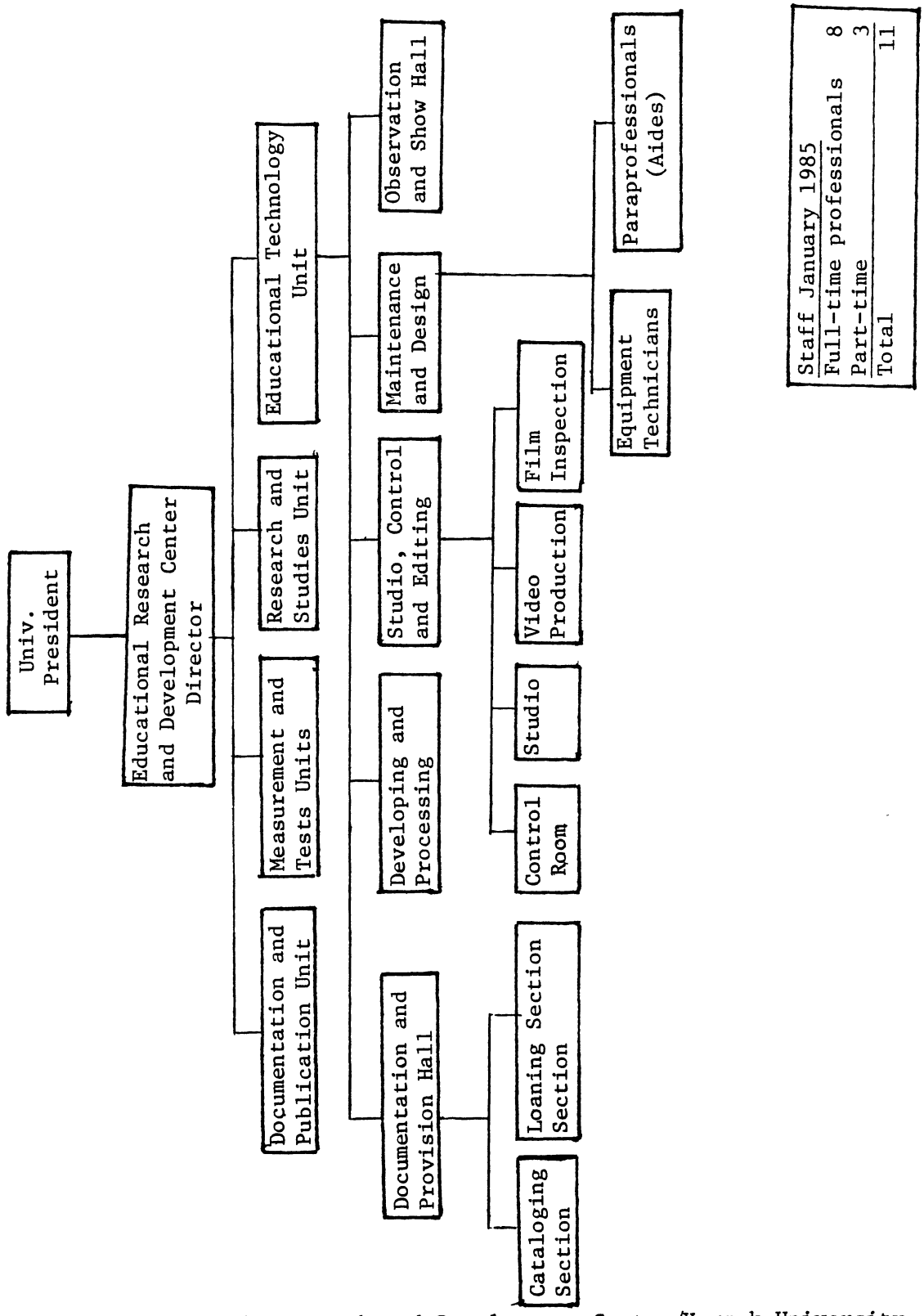

Figure 1. Educational Research and Development Center/Yarmuk University Organization and Staff

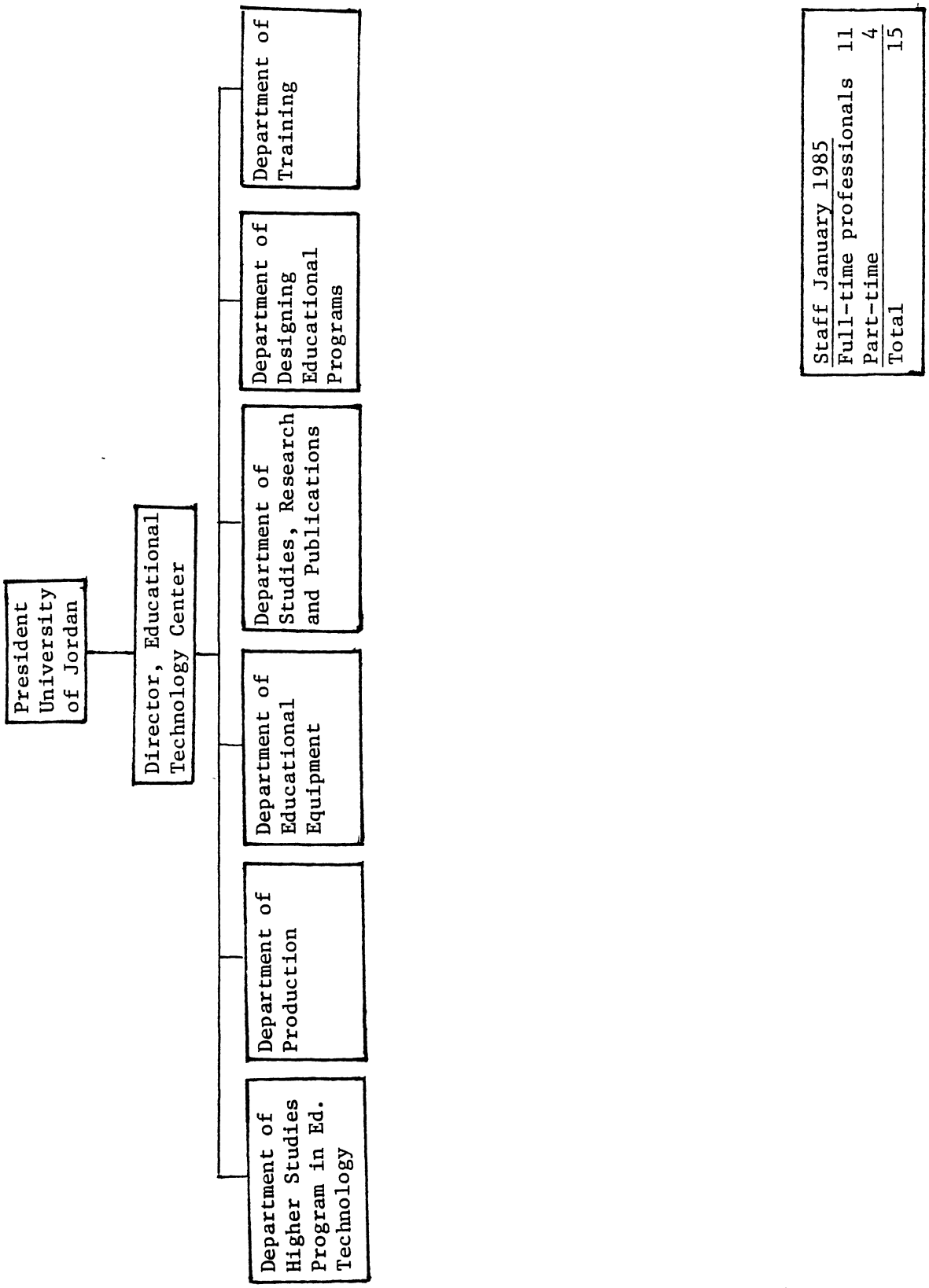

Figure 2. Educational Technology Center at the University of Jordan
Organization and Staff

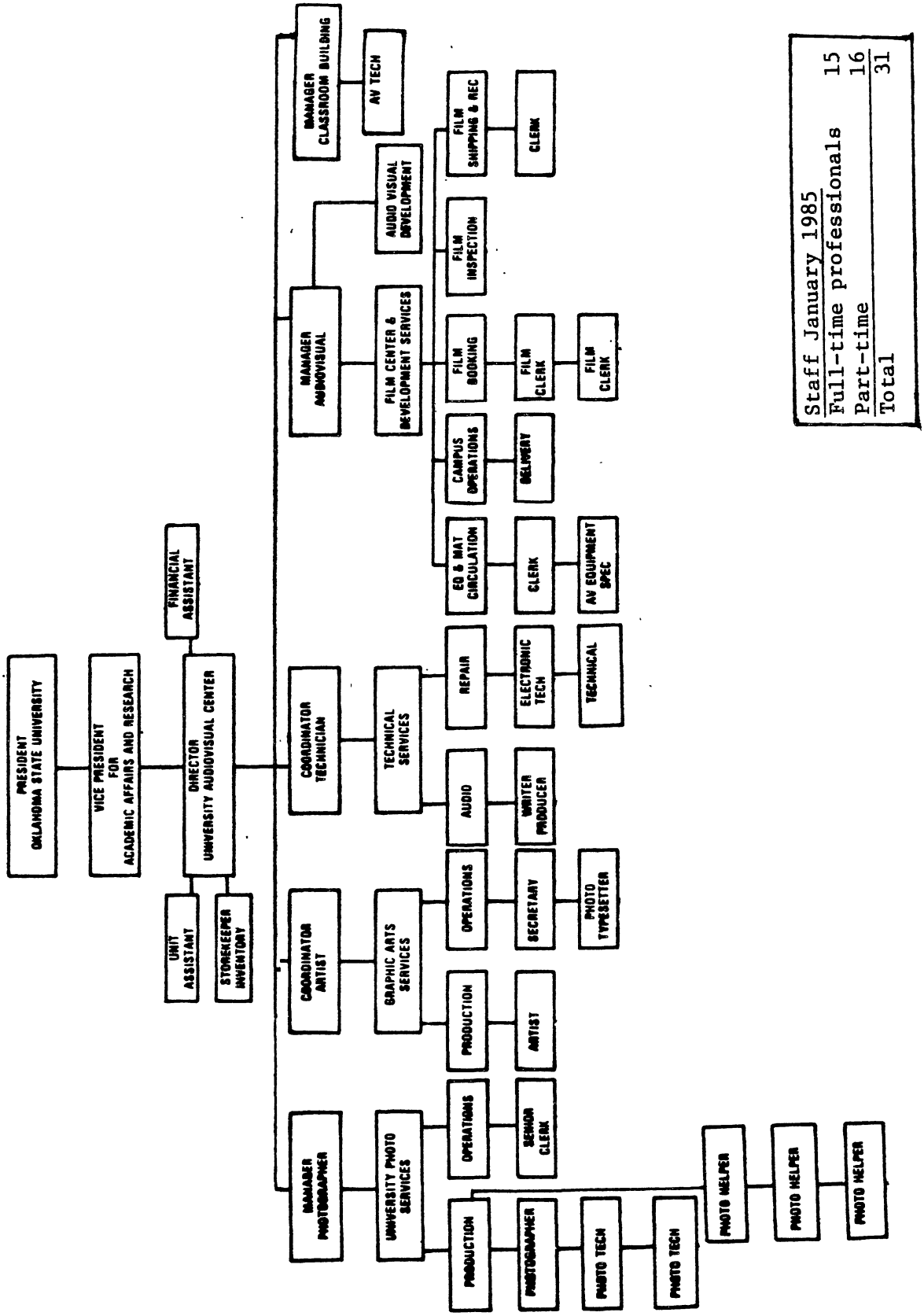

Figure 3. Audiovisual Center/Oklahoma State University January 1985 Organization and Staff

APPENDIX I

COVER LETTERS

Oklahoma State University

DEPARTMENT OF CURRICULUM AND INSTRUCTION

STILLWATER, OKLAHOMA 74078
GUNDERSEN HALL
(405) 624-7125

July 26, 1984

Khalid Yousef Almefleh

Director of the Educational Technology Center
at the University of Jordan
Amman, Jordan

Dear Sir:

Khalid Yousef Almefleh is a candidate for the Doctor of Education degree here at Oklahoma State University. I am chairman of his committee and his advisor.

This committee has approved the proposal for his dissertation, which will entail him administering a questionaire and conducting interviews with some of the staff of the media center at Yarmuk University and the University of Jordan. I hope this will meet with your approval and encouragement. Thank you so much.

Sincerely,

Dr. Gene L. Post
Professor, Curriculum and Instruction in Education

Oklahoma State University

DEPARTMENT OF CURRICULUM AND INSTRUCTION

STILLWATER, OKLAHOMA 74078
GUNDERSEN HALL
(405) 624-7125

July 26, 1984

Khalid Yousef Almefleh

Director of the Educational Research and
Development Center at Yarmuk University
Irbid, Jordan

Dear Sir:

Khalid Yousef Almefleh is a candidate for the Doctor of Education degree here at Oklahoma State University. I am chairman of his committee and his advisor.

This committee has approved the proposal for his dissertation, which will entail him administering a questionaire and conducting interviews with some of the staff of the media center at Yarmuk University and the University of Jordan. I hope this will meet with your approval and encouragement. Thank you so much.

Sincerely,

Dr. Gene L. Post
Professor, Curriculum and Instruction in Education

VITA 2

Khalid Yousuf Almefleh (Al-Qudah)

Candidate for the Degree of

Doctor of Education

Thesis: A COMPARATIVE STUDY OF UNIVERSITY-LEVEL MEDIA CENTERS IN JORDAN AND IN THE UNITED STATES

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born in Ainjanna, Ajlun, Jordan, February 8, 1948, the son of Fatima S. and Yousuf Almefleh Al-Qudah.

Education: Graduated from Ajlun Secondary School, Ajlun, Jordan, in June, 1967; received Licence of English Language degree from the University of Jordan, Amman, Jordan, in June, 1971; received Diploma of Education degree from Yarmuk University, Irbid, Jordan in June, 1982; completed requirements for the Doctor of Education degree in Curriculum and Instruction at Oklahoma State University, in May, 1985.

Professional Experience: English language teacher, Ajlun Secondary School, Ajlun, Jordan, September, 1971, to September, 1975; English Part-time Lecturer, Ajlun Community College, December, 1974, June, 1975; English Language Teacher, Abus Dhabi Preparatory and Secondary Schools, Beda Zaid, United Arab Emirates, September, 1975, to June, 1980; English Language Teacher, Ajloun Seconary School, Ajloun, Jordan, September, 1980, to January, 1983. English part-time lecturer, Yarmuk University, October, 1980, to June, 1981; English Language Teacher, Amir Hassan Secondary School, January, 1984 to May, 1984; Part-time lecturer, Department of Education, Yarmuk University, February, 1984 to May, 1984.