GUIDELINES DEVELOPED FROM A COMPARATIVE INVESTIGATION OF FOUR COLLEGE OF EDUCATION INSTRUCTIONAL RESOURCE CENTERS

THESIS FOR THE DEGREE OF Ph.D.

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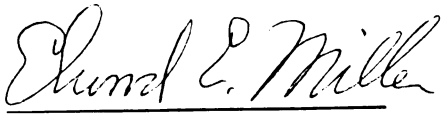

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ABSTRACT

GUIDELINES DEVELOPED FROM A COMPARATIVE INVESTIGATION OF FOUR COLLEGE OF EDUCATION INSTRUCTIONAL RESOURCE CENTERS

by

James E. Thompson

The purpose of this study was to establish guidelines for the formulation of an instructional resource center for a college of education. The guidelines were developed by reviewing significant professional literature regarding instructional resource centers and surveying four institutions that had established instructional resource centers in the college or department of education. The guidelines were formulated with the idea that the center was to contribute directly and importantly to the instructional process for training teachers and improvement of instruction.

Essentially, this study was one of description and analysis of instructional resource centers. Existing pertinent professional literature was analyzed, interpreted, and related to the college of education. The data collected from a personally administered information questionnaire was used to arrive at general trends and

observations. The study is subjective in nature and depends upon the investigator's perception of information gathered at the four institutions under study.

Specific suggested guidelines were formulated around the following framework.

1. The philosophy under which the instructional resource center should be operated. The instructional resource center should be formed with the idea that unified learning resources will strengthen the link in the teaching-learning process.
2. The functions the instructional resource center should serve for the student, faculty, and the instructional resource center staff. Instructional development and curriculum planning should be an essential element for a functional instructional resource center.
3. The material and equipment resources that an instructional resource center should include. The instructional resource should encourage preplanning and evaluation of resource and procedures to promote maximum efficiency of the use of the center's personnel, equipment, and materials.
4. The personnel both professional and technical-clerical should be included in an instructional

resource center. Professional instructional resource center staff should assist in seeking solutions to faculty and student identified teaching-learning problems.

5. The spaces the instructional resource center should include. The instructional resource center should provide an environment with a degree of informality and flexibility to encourage education faculty to seek instructional resource center staff for assistance in possible solutions to teaching-learning problems.
6. The line and staff organization of personnel for a fully developed instructional resource center within a college of education. The instructional resource center staff should have an integrated assignment of teaching and instructional development to serve the students and faculty in teacher education.

The guidelines developed from this study could assist in the formulation of other possible sub-centers within a university.

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By

James E. Thompson

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THE PROBLEM

Introduction

Higher education is feeling the threat of many pressures of a changing society, burgeoning knowledge, and increasing technology. The hapless administrator is caught in the middle, trying to improve social and intellectual conditions on campus with limited resources and facing a public demanding justification for the great expenditures supported by their tax-dollar.

In an article, "Change: Difficult, But Not Impossible," Diamond states:

> Faced with increasing enrollments, faculty shortages, expanding subject matter and limited financial support, colleges and universities must explore ways of improving their instruction. Instructional change, however, is only possible with full administrative and faculty support. Programs to improve instruction are under way on various campuses. Their goals are identical: quality education for more students without dynamic increase in cost per student.[1]

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[1]Robert M. Diamond, "Change: Difficult, But Not Impossible," College Management, III (October, 1968), 23.

Institutions involved primarily in the preparation or education of teachers have a significant role to play in the improvement of instruction. Recently a project administered by the American Association of Colleges for Teacher Education in conjunction with Ball State University, Muncie, Indiana, published a book titled, Teachers For The Real World which "presents a call for change in teacher education."[2]

In October, 1965, Gardner emphasized the need for improvement of instruction when he called for restoring the status of teaching, undertaking a thorough reform of the undergraduate curriculum, and improving our procedures for institutional planning.[3]

Commitment in institutional philosophy, faculty, students, governing boards, administration, financial, and physical resources is required if Eurich's forecast for higher education in the twenty-first century is to become an actuality. Eurich stated that from twenty-first century point of view:

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[2]Orthanel B. Smith, Saul B. Cohen, and Arthur Pearl (compilers), Teachers of the Real World (Washington: The American Association of Colleges for Teacher Education, 1969), p. v.

[3]John Gardner, "Agenda for the Colleges and Universities," Journal of Higher Education, XXXVI (October, 1965), 359-360.

> The most radical difference between today's colleges and those of fifty years ago, however, is not in the curriculum but in the use of learning resources.[4]

The professional literature shows that much has been written on instructional resource centers that serve elementary and secondary schools. Much has been written on the instructional media center for the total university, but there is little or no information in the literature on the development of resource centers within colleges of education.

Combs in his book The Professional Education of Teachers suggested:

> What is needed is not courses in methods, but curriculum laboratories, places where curriculum materials are available in abundance and where students can explore and try out all kinds of equipment, supplies, and materials . . . [they] should also provide space for experimenting with materials needed by teachers in carrying out their jobs. They should also be available when students need them, open at all times so that students can browse as they wish or work by themselves or with others. There should even be opportunity, if the student wishes, to set up materials and leave them for a period of time while he continues to experiment with them.[5]

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[4]Alvin C. Eurich, "Higher Education in The 21st Century," Readings in Curriculum, ed. Glenn Hass and Kimball Wiles (Boston: Allyn and Bacon, Inc., 1965), p. 564.

[5]Arthur W. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, Inc., 1965), pp. 108-109.

Torkelson in discussing the professional preparation of teachers called for an intergration of media resources to be included in students' education with the following recommendation:

> Provision should be made for adequate facilities and opportunities for preservice teachers to learn about and to use the latest instructional media . . . This preparation should include the incorporation of these media in student teaching situations . . .
>
> Instructional materials centers should be maintained in appropriate teacher training institutions which may act as centers for service to surrounding areas and as centers for continuing experimentation in the many problems associated with effective use of these media.[6]

Need for Study

Instructional resource centers in colleges of education exist to serve as a primary instructional materials resource for college faculty and students.

A major obstacle in utilization of resources is the difficulty teachers have in obtaining resources when needed.[7] This obstacle is being partially alleviated by

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[6]G. M. Torkelson, "Implications of Research in Newer Educational Media for the Teacher and for Teacher Education," Newer Educational Media (University Park, Penn.: The Pennsylvania State University, 1961), pp. 81-82.

[7]Charles F. Hoban, Jr., "Obstacles to the Use of Audio-Visual Materials," Audio-Visual Materials of Instruction, Forty-eighth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1949), pp. 53-71.

the growing trend of establishing resource centers within individual schools in a public school system. Increased development of instructional material centers in single schools is evident despite the lack of consistency in administrative organization for resource centers in the past.[8] Out of this growing trend in the development of instructional resource centers there appears to be a need to investigate the perceptions that faculty members have about such centers. One major factor in the development of a resource center should be teachers' needs and wishes. Facts about teachers' needs and wishes should be taken into account in the decision-making process about the resources to be included and the functions a resource center should serve.[9]

Combs and Snygg have indicated that "all behavior is a function of the individual's perceptions."[10] Consequently, if a director of an instructional resource center

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[8]James W. Brown and Kenneth D. Norberg, Administering Educational Media (New York: McGraw-Hill Book Company, 1965), p. 261.

[9]Carlton W. H. Erickson, Administering Instructional Media Programs (New York: The Macmillan Company, 1968), p. 61.

[10]Arthur W. Combs and Donald Snygg, Individual Behavior: A Perceptual Approach to Behavior (New York: Harper and Brothers, 1959), p. 18.

has different perceptions than those of the teaching faculty, their effective utilization of the materials and services they need to function within the classroom may be restrained.

Most modern educators recognize that good use of a variety of instructional media is needed by teachers if students are going to learn effectively and efficiently in our present educational environment. In the past audiovisual specialists and librarians have established their own little empires with little concern for learners. In an article in Audiovisual Instruction, Wyman claimed That an institution should base a resource center on the "essential process of education and assume that neither the library nor audiovisual empire exists."[11] One logical place for this combination is in the college of education.

Purpose of Study

The purpose of this study is to establish guidelines for the formulation of an instructional resource center for a college of education. The guidelines will be developed by reviewing significant professional literature regarding instructional resource centers and surveying individual institutions that have established instructional

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[11]Raymond Wyman, "The Instructional Materials Center: Whose Empire?," Audiovisual Instruction, XII (February, 1967), 115.

instructional resource centers in the college (department) of education. The guidelines will be formulated with the idea that the center is to contribute directly and importantly to the instructional process for training teachers and that it is to be a significant factor in the improvement of instruction.

Rationale

The rationale for the study is embodied in the following list of organizational principles.

1. If an agency is going to be effective it must meet the needs of its attentive public.
2. One way an agency may meet the needs of its attentive public in regard to the services offered by the agency is to survey and use the attentive public's attitudes and perceptions.
3. There should be active participation in structuring an agency by its attentive public to increase the probability that the agency will be utilized.
4. Cooperative planning of an agency with its attentive public is important in building good human relations.

5. There is a coalition of support within a college of education for an instructional resource center.

Definition of Terms Used

Instructional Media Center. An instructional media center is the central source for all types of instructional media resources and services provided to the total university population.

Instructional Resource Center. An instructional resource center is generally an administrative-formed service unit designed to serve the needs of the faculty in a college of education. The purpose of the center is to assist the professor in creating a richer learning environment for his students. Through cooperation, the center's personnel and education faculty can provide appropriate learning resources and experiences. Ideally, all learning resources (print and non-print) receive equal consideration and status.

Attentive Public. The attentive public consists of faculty, students, and administrators involved with teaching, learning, or directing programs in a college of education.

Professional Education Courses. Professional education courses are courses provided by a college of education for elementary and secondary teachers, instructors in colleges, and adult-education instructors. This definition also includes courses for the preparation of personnel who offer

leadership or special services in the educational system, such as counselors, principals, superintendents, supervisors, and visiting teachers.[12]

Resources

The resources to be investigated are categorized into the following four areas:

1. Physical facilities refers to the logical arrangement of the space for media in special areas within an instructional resource center.
2. Materials refers to films, maps, transparencies, books, filmstrips, or any other items that are provided by an instructional resource center for student and faculty use.
3. Equipment refers to electrical and mechanical devices such as duplicating machines, teaching machines, video-tape recorders, and any other devices provided by an instructional resource center for student and faculty use.
4. Personnel refers to staff required to operate an instructional resource center.

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[12]Michigan State University Editors Office, Catalog of Courses and Academic Programs (Lansing: Michigan State University Publications, 1969), p. 131.

Methodology

The methodology of this study is essentially one of description and analysis of instructional resource centers in an attempt to arrive at an ideal model for a college of education. Existing pertinent professional literature will be analyzed, interpreted, and related to the college of education.

CHAPTER II

REVIEW OF THE LITERATURE

In general the literature describes institutional resource centers and not specific centers within the college of education. This chapter will review the literature of institutional resource centers as it applies to an instructional resource center within a college of education.

Every college of education, regardless of its size, has the beginnings of an instructional resource center (hereafter referred to as an IRC). Often such a center is also referred to as a curriculum center, teaching materials center, media center, or learning resources center. However, throughout this study only the term IRC will be used.

Philosophy

It appears logical that the design and planning of any unit of instruction should begin with the development of a philosophy.

> To proceed without a basic master plan to govern the organized growth of the institution and to see that its physical environment is indeed a reflection of the philosophy of the institution and its educational objectives is to court disaster.[1]

In general, the philosophy should be a rational explanation of aims and goals concerning the IRC commitments to its administrators, faculty, and students with regard to the center's functions and operation. This philosophy should describe the commitment of the faculty and administration to the IRC concept. In describing an overview of the philosophy of the IRC concept the following has been stated:

> The instructional materials concept has developed in response to the continuing search for better educational programs which unify the many school resources, namely audio visual materials and printed materials. It says, in essence, that good teaching in today's schools requires effective use of the best in learning materials and tools.[2]

The IRC concept is that centers are formed with the belief that individuals, not subjects, are taught. Students should be brought into effective contact with ideas and experiences so learning results and students have the desire to continue their search for knowledge on their own initiative. The

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[1]Francis H. Horn, Jonathan King, and James J. Moresseau, "Facilities and Learning," in Higher Education, ed. Samuel Baskin (New York: McGraw-Hill Book Co., 1964), p. 171.

[2]Delphine Artz and others, The Instructional Materials Center, Bulletin No. 369 (Lansing, Mich.: The Department of Education, 1965), p. 36.

center is a place where a student can go to learn at his own rate and on his own level of understanding. Miller in Graphic Communications and the Crisis in Education wrote that in order to learn, the student must (1) want something, (2) notice something, (3) do something, or (4) get something he wants.[3] Beggs noted that for years we have taught as we were taught, largely by listening to teacher's lectures. "Yet we know this results in less efficient learning than when students are active and highly involved in the learning process."[4]

Harcleroad stated that "local definition of learning resources can affect planning considerably."[5] Harcleroad, principal investigator on a project for the development of plans for California State University Library and Audio-visual facilities, described learning resources as

> (1) stored knowledge in whatever form it may be preserved and (2) the media to store and reproduce it for later use by learners, for presentation by teachers or for the active developmental use of either. The term is meant to include equipment

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[3]Neal Miller, "Graphic Communications and the Crisis in Education," Audiovisual Communications Review, V No. 3 (Summer, 1957), 63.

[4]David W. Beggs, III. "Organization Follows Use...The Instructional Materials Center," Audiovisual Instruction, IX No. 9 (November, 1964), 604.

[5]Fred Harcleroad and others, Learning Resources for Colleges and Universities, NDEA-7B-394 (Hayward, Calif.: California State College, 1964), p. 17.

> and a wide variety of actual printed, electronic, or photographic materials -- ranging from simple slides or tape recordings to complex reference books which represent years of analytic effort.[6]

Only through commitment can an IRC concept be integrated into the mainstream of the teaching-learning process. Masiko and Bouwsma stated that the initial planning of the Miami-Dade Junior College IRC in Miami, Florida, began with "formulation of educational philosophy and behavioral objectives. After a decision was reached concerning innovative projects to be included in the building, the staff and faculty worked out the student and academic needs which had to be met."[7]

Many times the philosophy of an IRC is stated in its purpose. Brevard Junior College IRC has subscribed to "innovation through the systems approach." The major objective at Brevard is the nourishing of new approaches to learning based on experimentation, research, and integration of learning resources created to enrich and strengthen the progress and growth of the school as an educational institution.[8]

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[6] Ibid.

[7] Peter Masiko, Jr., and Frank Bouwsma, "New Learning Center Stimulates Innovation at Miami-Dade," American School and University, XXXIX No. 9 (May, 1967), 60.

[8] William Kenneth Cumming, "The Learning Center at Brevard Junior College," Audiovisual Instruction, XII No. 8 (October, 1967), 802.

A prospectus for Western Piedmont Community College on the IRC states:

> It shall be the policy of the Board of Trustees to provide teachers and students with the means required to facilitate effective curriculum development, effective accomplishment of learning work by students. A learning resource center shall be basic to educational operations in Western Piedmont Community College.
>
> It is a principal key to the approaches to teaching and learning to which the College shall be committed.[9]

It appears that at Western Piedmont the IRC is the "hub of learning."[10]

Philipson and others at Minnesota University state:

> If Minnesota junior colleges are going to multiple goals of educating . . . the junior college aims will be best accomplished through the unified and integrated approach in the use of materials and media found in a Learning Resource Center.[11]

The authors also state, "It is time for specialists in library, audiovisual, curriculum, computeraided instruction, and programmed instruction to begin working

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[9]"The Prospectus For Western Piedmont Community College" (Morganton, North Carolina: December, 1964), p. 26 (Mimeographed.)

[10]Stanley D. Saltzman, "Instructional Materials Center: The Hub of Learning," Audiovisual Instruction, XII No. 8 (October, 1967), 802.

[11]Willard Philipson and others, "An Exploration of the Learning Resources Philosophy and Services Being Developed in the Junior Colleges of Minnesota," Audiovisual Journal, III No. 2 (November, 1968), 34.

together for the establishment of the Learning Resource Centers in the state junior college system."[12]

Design of Space and Environment

Ideally social institutions as in architecture design form follows function. The prime function of educational institutions is the effecting of communication. American heritage to a large extent is transmitted through the medium of our school curriculum. Learning is the process of facilitating communications for the purpose of acquiring and transferring meaning.

The communications process should serve as a primary source for the design and operation of an IRC. Communication data can be gathered in the form of feedback from users and potential users of the center, including teachers, administrators, students and possibly people from the community. Harcleroad feels planning for housing of learning resources should be based on the following critical variables: (1) methods used, (2) students served, (3) faculty served, and (4) local definition of the concept of learning resources.[13]

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[12] Ibid., p. 32.

[13] Harcleroad, Learning Resources for Colleges and Universities, p. 11.

A broad philosophy in regard to instructional resource center design should include:

> 'natural' flow of movement consistent with the logic of the operation; there should be no frustration introduced, due to built-in difficulties of movement. At least the electronic avenues of communications within the system should be clear, open and two way . . . And space design to foster a close teacher-student relationship is likewise a good investment (e.g. library carrels large enough to seat two people--teacher and a student--so that the teacher occasionally may sit in, even though briefly, with a student during study periods). . . . Incorporating space for discussion, planning, and sharing in the design, therefore, should be essential.[14]

The environment should also include an attractive exhibit area. The inside wall should be non-loadbearing so that change will be enhanced and not impeded. Movable walls give much more flexibility for space arrangement, and because the area should be thought of as experimental, it should be subject to change so that the design can follow the function within which it is operating. Greenhill and Carpenter reinforced the idea of flexibility in the following:

> Current thinking about learning resource centers tends to emphasize 'new' media like films of all kinds, audio and video tapes, graphics, models, simulation mechanisms, and, prospectively, programed

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[14]David V. Guerin, "Implications and the Communications Process For School Plant Design," Audiovisual Instruction, XII No. 8 (October, 1967), 815.

> instruction. Emphasis is also put on facilities for distributing high-quality pretested stimulus materials and on presenting them to students in a wide range of study situations both on and off campus. The emphasis is on achieving enough flexibility so as to make instructional materials available to students when and where desired.[15]

The IRC must operate under the philosophy that the major purpose of design is to improve learning and effective communications between the student and the environment.

The report of the Higher Education Media Study indicated that "a convenient and attractive space of instructional services is very important to encourage faculty acceptance and utilization of these services."[16] It should be obvious that this also applies to students. The Higher Education Media Study discovered that the highest staff morale was found in the visited campus institutions where unified services were offered by a resource center or where special facilities made extensive use of media.

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[15]C. R. Carpenter and L. P. Greenhill, "Providing Conditions for Learning the 'New' Media," in Higher Education: Some Newer Developments, ed. by Samuel Baskin (New York: McGraw-Hill Book Co., 1964), p. 146.

[16]James W. Thornton, Jr., and James W. Brown, (eds.), New Media and College Teaching (Washington: The Department of Audiovisual Instruction of NEA, 1968), p. 132.

As stated by the authors of a report from the Educational Facilities Laboratories, educators have used the catchword "flexibility" so much that architects are complaining that educators are placing educational problems on their shoulders without solutions. The word flexibility, a highly abstract term, becomes meaningful only when broken down into the particular requirements needed to meet a specific situation. As further reported, architect Caudell has discontinued the use of the word flexibility for more desirable terms such as versatile space, expandable space, convertible space, and malleable space. Caudill defines versatile space as space serving many functions, expandable space as space planned for growth, convertible space as space which can feasibly be adapted for program changes, and malleable space as space that can be changed at once and at will.[17]

Today's schools are more aware of planning and design as Gilliland reflected:

> Change in school planning and school design is the result of a concern of educators and architects that school buildings of the past

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[17]Ronald Gross and Judith Murphy, Educational Change and Architectural Consequences, A Report from Educational Facilities Laboratories (New York: Educational Facilities Laboratories, 1968), p. 15.

> were not being planned to meet the needs of the teachers and students who work in them.[18]

The day of the "egg crate" brick schoolhouse and its distasteful environmental conditions is hopefully gone.

If instructional resource centers are going to be functional units they must be "designed to grow and change with the growth and change of the college."[19] Careful consideration needs to be given in the design and planning of illumination, thermal control, furniture and equipment, acoustical control, wall colors and textures, with emphasis on flexibility to accommodate change and adaptibility when opportunity presents itself to improve the learning environment.

In designing for sound reduction, consideration must be given to acoustical treatment of ceiling, floor, room partition and room shape. Surfaces need to be selected that will absorb sound rather than help project it as do hard surfaces. One of the better materials for ceiling treatment in sound reduction is acoustic tile or panels.[20]

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[18]John W. Gilliland, "The Trend Toward Functional Schools," American School and University, XXXIX No. 7 (March, 1967), 45.

[19]"A Trio of Libraries: 1. Green River Community College," American School and University, XXXIX No. 3 (November, 1966), 45.

[20]James W. Brown and Kenneth D. Norberg, Administering Educational Media (New York: The Macmillan Co., 1968), p. 63.

A recommended floor covering is carpeting which helps eliminate the noise of chairs and shoes on hard surfaces. The initial cost of carpeting is considerably more expensive than tile, but projected maintenance cost is 45 percent less. Initial cost of carpeting is expected to be offset in the saving in maintenance over six to eight year period.[21]

Flexible room dividers and partitions have improved considerably in the past few years. But it must be remembered in the selection of partitions the key to sound reduction is air-tightness. Material selected for wall partitions should be pliable, with dead air spaces to help absorb a considerable amount of the sound. The much used six-inch plastered cinder block is not as effective a sound barrier as is gypsum board attached on both sides of saw-split wood studs even though the block weighs three times as much as the gypsum wall.[22]

The ideal shape of a college library is "a three to five rectangle with the entrance at the one-third point

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[21]Ralph E. Ellsworth and Hobart D. Wagener, The School Library, ed. Ruth Weinstock, A Report From Educational Facilities Laboratories (New York: Educational Facilities Laboratories, 1963), p. 95.

[22]Ibid., p. 90.

along one of the walls."[23] In planning suggestions for controlling sound Brown and Norberg suggest nonparallel walls are better than "parallel walls of square or rectangular rooms."[24]

The objective of good illumination design in schools is to provide instructors and students with a comfortable and efficient visual atmosphere free from unnecessary distractions. Learning space designed for proper lighting should meet the following four basic criteria:

> Visibility, as influenced by amount, distribution, color and control provided;
> Comfort, as determined by the absence of glare and eye strain;
> Atmosphere, as provided by the psychological reactions produced; and
> Composition, as seen in its effects upon the architectural surroundings.[25]

As reported by the Educational Facilities Laboratory, the findings of the Illuminating Engineering Society are that "Reading room light levels should be maintained at 70 foot-candles after initial drop-off."[26] The Educational

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[23]Alan E. Green (ed.), Educational Facilities with New Media, (Washington: The Department of Audiovisual Instruction of NEA, 1966), p. C-16.

[24]Brown and Norberg, Administrating Educational Media, p. 63.

[25]Green, Educational Facilities with New Media, p. C-6.

[26]Ellsworth and Wagener, The School Library, p. 91.

Facilities Society further suggested the cold feeling of fluorescent tubes can be avoided by adding a few incandescent lamps. Plastic lenses, baffles, or glass should be used to shield fluorescent tubes. For maximum lighting efficiency, light colors should be used on walls, ceilings and floors.[27]

"The use of strong, bright colors may not be too good for the eyes, but if it helps students like the library perhaps these colors are justified. . . ."[28] All display areas should provide good background contrast with the medium used in conjunction with them. Awareness of the background should not detract from objects being displayed. And accent lighting needs to be provided for display areas.

Another concern in lighting is brightness that reflects from surfaces which are within the field of vision.

> "Brightness" ratio is a term applied to two relatively large areas; "contrast," a term with a similar meaning, refers to the relative brightness of small adjacent areas, such as printed characters and their background.[29]

Important considerations in brightness are surface textures and colors. A brightly colored matte finish should be used

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[27]Green, Educational Facilities with New Media, p. C-10.

[28]Ellsworth and Wagener, The School Library, p. 92.

[29]Green, Educational Facilities with New Media, p. C-8.

for writing surfaces with a light reflection of no more than 56 percent.[30]

The climate needs to be controlled so students are kept attentive and alert if learning is going to be encouraged. The factors affecting the climate are humidity, air movement and temperature. Engineers recommend the relative humidity range should be between 30 and 50 percent.[31]

The following is reported for air movement and circulation:

> For sedentary adults, a minimum of 25 cubic feet of fresh air should be provided per person in small, crowded spaces (100 cubic feet of volume per person) in larger, uncrowded spaces (400 to 500 cubic feet of volume per person) this may be as little as 7 cubic feet per occupant. For moderate activity these amounts should be increased by 50%. Thus the minimum amount of fresh air to be supplied in the larger and medium-sized learning spaces will probably range from 10 to 15 cfm per person, depending on the age of the students. Cooling requirements, however, as opposed to ventilation requirements, will often necessitate introducing larger volumes of air.[32]

Temperature should remain constant at all times using a combination of heating and cooling as required for the thermal loads of the room or rooms. It goes without saying that air-conditioning is essential for proper cooling.

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[30]Green, Educational Facilities with New Media, p. C-11.

[31]Green, Educational Facilities with New Media, p. C-19.

[32]Green, Educational Facilities with New Media, p. C-20.

Personnel

Obviously, the physical facilities are not the only requirement of an ideal IRC. The personnel charged with the operation of the center are the vital links in the effective functioning of a center.

In an article written by Kenneth I. Taylor entitled "Instructional Materials Center" a question is raised on the type of personnel needed for a materials or resource center. Taylor proposes the following answer:

> Consultants who are trained and experienced in using all types of materials. They should have a knowledge of the curriculum of the school, knowledge that comes only from experience within the school itself. They should know how to teach, and should understand the needs and interests of young people.[33]

For years professionals have suggested the combination of print and non-print materials into single IRCs. Similar professionals suggest with this combination or integration of resources the director should be competent in all the media and their utilization. But there are few examples of this utopia to which we can point.[34]

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[33]Kenneth I. Taylor, "Instructional Materials Center," Nations Schools, LXVI No. 6 (December, 1960), 49.

[34]Raymond Wyman, "The Instructional Materials Center: Whose Empire?," Audiovisual Instruction, XII, (February, 1967), 115.

An article by Bernotavicz and Wallington discusses a new approach to describing positions in instructional media. They described the methods used in classifying personnel in the Jobs in Instructional Media Study (JIMS). The project staff first divided jobs into tasks, and then examined tasks that were completed and what the worker actually did to complete the task. Project staff used direct observations for analyzing the jobs. One hundred and ten jobs were classified according to three areas: specialists, aids, and technicians. This classification represents the job requirements for responsibility and demand for supervision.

In general the specialist is involved with the "broad process approach." He deals with problem solving instead of having specified tasks and routines to perform. The technician is involved with the output of a product but only where all tasks and routines have been specified. Aids do not solve problems, but perform tasks where instructions are specified, and the task may just be a part of the total process.[35]

Another study closely related to the JIMS project is the Media Guideline Project which is funded under a United

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[35]Freda D. Bernotavicz and Jim Wallington, "Act 1 of JIMS," Audiovisual Instruction, XV (May, 1970), 26-30.

States Office of Education grant. Media personnel are divided into six responsibility groupings: direct administration, professional, artistic-production, technical, clerical, and manual. They perform management functions relating to organization, information, and personnel, and operation functions relating to research and development, evaluation, design, production, logistics, and utilization. These responsibility groupings and functions are performed at the various institutional settings: elementary-secondary, state educational agencies, county-district agencies, college and universities, business and industry, military, and government agencies.[36]

Planning for resources takes a considerable amount of time and effort on the part of personnel. The Materials Training Center at Chicago Teachers College took two years in equipment selection, installation procedures, and constant experimentation.[37] Planning for resources is a continuing process of updating, revising, experimenting, and evaluation for the improvement of the efficiency of learning.

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[36]Dale G. Hamreus "Media Guidelines," Audiovisual Instruction, XV (May, 1970), 32-33.

[37]Philip Lewis "From Blueprint to Reality," Educational Screen and Audio-Visual Guide, XXXIII No. 3 (March, 1954), 98.

Independent Study

Learning is an individual matter for students. Unfortunately in most teacher education programs we are teaching the masses as opposed to individuals. Media are thought of as being more economically feasible for teaching large groups of students, but Saettler set the stage for individualizing instruction using media when he stated:

> Within the educational context, the methods and media of communications, patterns of planning and utilization, and a modern logistics of instruction must be organized instructional systems in order to secure more effective and efficient learning. . . . What is needed are integrated, organized systems of instruction, perhaps computer controlled, in which all components (including teachers) of the instructional process are fitted together into a system that is capable of providing individualized instruction for each learner-communicant.[38]

In reflecting about the past use of materials in the curriculum Lock wrote that all too often materials have determined the order in which we learn and what we have learned. Textbooks generally have determined our content and course of study. The rational approach to teaching is the formulation of curriculum goals and the guides to implement them. The teacher should adapt materials to fit the students in light of the course objectives and not let materials determine

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[38]Paul Saettler A History of Instructional Technology (New York: McGraw-Hill Book Co., 1968), p. 270.

what she teaches or determine the curriculum.[39] Perhaps with an abundance of carefully selected materials placed in an IRC it will help change teaching styles.

Resource centers today can play a major role in making resources more readily available, thus assisting instructors in placing more emphasis on independent study. According to Sleeman and Goff significant future trends of instructional material centers include

> (1) focus on the individual rather than the group; (2) making the individual more responsible for his own learning; (3) true inquiry in place of memorized learning, and (4) topics taught in depth in view of 'fact teaching'.[40]

Lloyd Trump argued that independent learning or study is the heart of an academic program. Education is based on three types of instruction, "large-group instruction," "small group instruction," and "independent instruction." He stated that a comprehensive independent study program should consist of five facilities: (1) the learning resources center, (2) library, (3) conference room, (4) relaxation area, and (5) formal study area. The

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[39]Caroline J. Locke, "Today's Materials and Equipment," The Instructor, LXXVI No. 2 (October, 1966), 58.

[40]Phillip J. Sleeman and Robert Goff, "The Instructional Materials Center: Dialogue or Discord?," Audiovisual Communications Review, XV No. 2 (Summer, 1967), 164.

separation of these facilities is dependent upon the size of the school.

The IRC described by Trump contains two parts: study area and workroom area. The study area is where students can go to write, think, read, converse, view materials, and listen. The workroom area is where specialized "tools of the trade" are easily accessible. He stated that these areas need to be supervised by paraprofessional-type personnel or instructional assistants who are knowledgeable in subject areas in that they have completed two years of college work. The professional staff would be responsible for training the assistants in techniques of cataloging materials, circulation, repair, and ordering. The major focus of the learning resources center should be on use rather than storage.[41]

The IRC at the University of Pittsburgh is devoting major efforts to "individually prescribed instruction" for students. The conceptual model for individualization consists of the following six components:

> (1) sequentially established curricular objectives in each area stated in behavioral terms;
> (2) a procedure and process objective of the curriculum and the proficiency level desired for

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[41]Lloyd J. Trump, "Independent Study Centers: Their Relation to the Central Library," Bulletin of the National Association of Secondary School Principals, L No. 306 (January, 1966), 46-48.

> each student and each objective; (3) the necessary materials for individualizing learning to provide a variety of paths for attainment of mastery of any given objective; (4) a system for individually prescribing the learning task the student is ready to undertake; (5) the organization and management practices of the total school environment to facilitate individualization; and (6) strategies for continuous evaluation and feedback of information for teacher decision-making as well as information for continuous evaluation of the curricula for the curriculum developers."[42]

Local Production Area

An important area of an IRC is where students and faculty may produce their own materials. Often commercial materials do not meet the needs of a particular teaching topic or unit to be presented, and, therefore, production facilities need to be provided so materials may be designed, adapted, or produced for local applications.

In discussing facilities for an IRC Guerin saw the need of local production areas within satellite IRC's. He felt the production areas should provide equipment for quick preparation of transparencies, lettering, and graphics. The main center would be more elaborately staffed and equipped to give a more comprehensive graphic support. The advantage of placing production facilities in a satellite IRC is that it becomes a more comprehensive unit.

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[42]John O. Bolvin, "Individually Prescribed Instruction," Educational Screen and Audiovisual Guide, XLVII No. 4 (April, 1968), 14-15.

The facilitation of communication is better because materials not only are catalogued and stored but also may be created or designed for or by specific students or groups of students.[43]

Another advantage of locally producing materials is that many persons are encouraged to examine more carefully the objectives of the message they are attempting to create. Production of materials requires considerable time and effort, and normally persons involved have high interest in what they are doing.

Hopefully, the process of planning, organizing, and producing materials causes teachers to ask questions. The questions center around how to visualize certain teaching concepts; thus better insights are gained into student problems of understanding concepts which the instructor may previously have taken for granted.

Local production of materials requires equipment, facilities, materials, and personnel for its management. Kemp suggested that the following activities should be considered: picture mounting, lettering, paper duplication, drawing and illustration, display, black-and-white photography, construction of 3-D objects, coloring, color still

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[43]Guerin, Audiovisual Instruction, X, No. 2, 97.

photography, motion picture photography, and sound recording.[44]

Professor Frye of Indiana University suggests production can be separated into six basic techniques. These techniques are photography, mounting, lettering, duplication, coloring, and illustrating.[45] When techniques of production are broken down into the classifications suggested by Frye, it is much easier to build work areas around these techniques.

Tanzman listed the following points for inclusion in an ideal material center:

> making overhead transparencies, 35mm. slides, graphs, charts, posters, dry mounts, color lifts, laminations, duplicate and facsimilie reproductions, black and white (and color) study or display, prints, filmstrips, 16mm. motion pictures, enlargements or reductions from books or magazines, duplicate slides and so forth.[46]

He used the Punahou School in Honolulu, Hawaii as his model. The above materials are included in the Punahou IRC preparation room.

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[44]Jerrold Kemp, "Local Production-Where Do You Begin?," Educational Screen and Audiovisual Guide, XLVII No. 1 (January, 1968), 27.

[45]Harvey R. Frye, Handout in R-573, Principles of Graphic Communications (Bloomington: Indiana University, Summer, 1965), (Mimeographed.)

[46]Jack Tanzman, "The Complete AV Center--What It Takes To Do The Job," School Management, X No. 11 (November, 1966), 141.

An article written by Swanson titled "Improving Instruction Through Materials Centers" suggested the following materials and equipment for a production area:

> Materials and equipment should be provided so pupils and teachers can make maps, charts, graphs, models, mock-ups, objects, specimens, puppets, posters, dioramas, flannel boards, exhibits, slides, and items needed for demonstrations and experiments.[47]

Production facilities are further stressed in the "multi-media instructional systems" approach to teaching that is used at Mt. San Jacinto Junior College. The purpose of this approach is to assist students in accomplishing learning tasks in the most efficient and concise manner possible. The approach utilized the instructional center as an integral part of the system. Study materials with accompanying examinations to be used in custom-designed study carrels are available to the students in the instructional center. The carrels are equipped with tape recorders and filmstrip projectors.

The responsibility of designing the appropriate media for the carrels lies with each individual instructor. The instructor must prepare scripts, and make available artwork, props, and other materials needed for productions.

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[47]Reynold A. Swanson, "Improving Instruction Through Materials Center," American School Board Journal CXXXIX No. 4 (October, 1959), 48.

Studies and evaluation of the "multi-media instructional system" are being carried on cooperatively with the University of California. The research studies are being carried on under the direction of Mr. Bruce Munroe, executive assistant to the Dean, Program on the Education of Teachers, University of California.[48]

Following the establishment of a need for a production facility and the determination of activities to be carried on, the question of organization and management arises. Many schools are attempting to organize program and exercises on basic production techniques that allow students to learn at their own rate and independently. These packages are being developed on slides with accompanying tapes, 8mm and 16mm films, video tapes or booklets which students and faculty secure from the laboratory assistant or clerk and use in carrels. These packages contain illustrations of particular techniques with accompanying audio or written instruction on how to perform the particular technique. The packages usually require active involvement with the technique after it has been described. In a carrel the various equipment and materials

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[48]Joseph L. Bishop, Jr., "Mt. San Jacinto Multi-Media Instructional System," Educational Screen and Audiovisual Guide, XLVII No. 9 (September, 1968) 19, 37.

are provided to perform the specific production technique described in the package.

The publication Educational Facilities With New Media suggests that all modern educational innovations for student learning have a common thread of providing a "warehouse" of learning resources. Two aspects of providing resources are:

> (1) devising methods of producing student and teacher resources, and (2) devising methods for instant recall of resources already produced. The publications calls for a need for facilities to locally produce unsophisticated materials by the faculty and students with minor or no supervision.[49]

One way of accomplishing this objective is to organize self-instructional production laboratories.

Summary

The planning of an IRC necessitates formulating an underlying philosophy, a rationale specifying the IRC goals and aims that take into account the functions and operations of the center. The role of the IRC emphasizes educating the individual student in accordance with his particular needs while the student himself is actively involved in the learning process. The IRC resources themselves support this type of independent study. Generally, the IRC is intended to strengthen and enrich education through integration of learning resources.

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[49]Green, Educational Facilities With New Media, p. A-17.

The actual physical design of the IRC should promote the flow of natural movement while at the same time allowing for a close teacher-student relationship. A necessary area of the IRC is the local production area where students and teachers alike may produce their own materials. Here these materials can be designed and adapted to meet personal objectives, thereby encouraging people to analyze carefully the objectives of the message they are trying to convey.

The designing of the entire physical facility should permit the IRC to adapt to the growth and change of the college or university. Such specific factors as good illumination, sound reduction, atmosphere free from distraction, and a controlled climate are vital for effective functioning.

Since the scope of the IRC is so broad, the personnel are usually classified according to the job requirements for responsibility and demand for supervision. These people not only operate the IRC but spend much time revising and evaluating resources for continued improvement. As can be concluded, maximum effectiveness in an IRC is dependent on the good planning and integration of all facilities involved and cooperation among many people.

CHAPTER III

PROCEDURES

This chapter presents the procedures used in gathering data for the study. This chapter explains who was involved in the study, the design of the instrument used in gathering information, and the method of describing and tabulating data collected.

Population

Four institutions were selected for the study, two from Illinois and two from Michigan. These institutions were selected on the basis that they had established IRC Centers in their Colleges (or departments) of Education and were in close enough proximity for the researcher personally to visit and interview the director of each institution. The schools appeared to be the best representative in each state for their IRC from information gathered informally from leaders in the field. The institutions were also selected because of considerable variance in quantity of resources for the IRC and because the background of each director was considerably different; therefore, common functions and resources were thought to be more valid and realistic.

The institutions selected were: Western Michigan University, Kalamazoo, Michigan; Michigan State University, East Lansing, Michigan; University of Illinois, Urbana, Illinois; and Eastern Illinois University, Charleston, Illinois. For the purposes of this study these institutions were classified as institution A, B, C, and D, respectively. This classification was made so that the complete titles of the institutions did not need to be written out multiple times. Each institution contained a school (or department) of education and an established Instructional Resource Center for its particular school (or department) of education. Each institution contained an institutional library and media center. This instrument was administered to the directors of each institution.

Instrument Design

The instrument was divided into eight distinct sections. Section one, demographic data, was designed to elicit responses on background information for each director and his particular institution. Section two, philosophy, was designed to elicit responses as to the importance of the type of philosophy needed for the operation of a college of education IRC. Section three, functions, was designed to elicit responses to questions asked with regard to the role or functions the IRC should perform in order to operate. Section four, resources, was divided into two

divisions, material resources and equipment resources. The IRC directors were asked to rate the importance of selected material and equipment resources along with the number of their particular center's current holdings, current deficiencies, and the number of resources needed for an ideal program. Section five, personnel, was designed to elicit responses for rating the importance of personnel, both professional and technical-clerical, for inclusion in an IRC. Each director was asked to indicate the number of persons he currently employed, current deficiencies, and the number needed for an ideal program. Section six, space and environment, was designed to elicit the value the directors set on the space and environment that an IRC should provide. The second part of each question asked directors to indicate the number of square feet their center currently contains, how their center is currently deficient and the square footage that is needed to operate an ideal program, assuming the number of faculty and students remain constant. Section seven, budget and finance, was designed to elicit information on the budget required to support the IRC in the four institutions surveyed, the persons who control the budgets in the various institutions, and the particular method used to determine each individual institution's budget and finances. Section eight, administrative organization, was

designed to elicit responses on the line and staff organization that currently operates at each particular institution, and on the organizational patterns the IRC directors considered would better serve the IRC needs. The instrument is presented in Appendix A.

Analysis of Data

Data gathered from the information questionnaire were recorded and charted by the hand summary method. All sections except the second and eighth list number and percentage of responses to each statement. Sections four, five, and six also list current holding, current deficiencies, and number of items needed for an ideal program for each statement by individual institutions. All data reported are also charted in Appendix B.

CHAPTER IV

SURVEY RESULTS

Chapter four reports the responses and suggestions collected by personal interviews from instructional resource center directors of four selected institutions. The responses concern important components for inclusion in a college of education instructional resource center. The instrument was divided into eight sections. Each section is reported independently.

Section One - Demographic Data

The background information on each director and his particular institution is reported in this section.

Response Analysis

Question A - Enrollment in institution and in education.

Institution	Total Enrollment	Enrollment in Education
A	21,750	6,890
B	40,820	11,246
C	31,000	1,396
D	9,000	6,000

Question B - Full-time equivalent faculty teaching in institution and in education

Institution	Total Faculty	Faculty in Education
A	921	169
B	800	232.8
C	*	200
D	584	121

*Number was not available through normal channels.

Question C - Department in which director's academic rank was held

Institution	Department
A	Teacher Education
B	Teacher Education
C	Secondary Education
D	Teacher Education

Question D - Academic rank and professional title of director

Institution	Rank	Title
A	Professor	Director
B	Professor	Director
C	Teaching Assistant	Director *
D	Associate Professor	Director

*Employed on a three-fourths time base

Question E - Semester hours director currently teaching for academic year

Institution	Semester Hours
A	Not Teaching
B	12
C	Not Teaching
D	22

Question F - Years of teaching experience and level of teaching experience of director

Institution	Total Years	Level
A	27	Elementary, Secondary, University
B	25	Elementary, Secondary, University
C	16	Secondary, University*
D	13	University

*Part time

Question G - Semester hours of preparation in media and type of courses taken by director

Institution	Total Hours	Type of Courses
A	3	Educational Research
B	36	Media Administration, Production, Research, Utilization, Selection, and Television
C	0	
D	139	Media Administration, Production, Utilization, Selection, Message Design, Research, Television Communicator

Question H - Total years of media experience and type of experience of year

Institution	AV	Library Admin.	AV Admin.	Curriculum
A	5	5	3	2
B	18		21	
C				
D	13		13	

These years represent combinations of teaching and administration. The director of Institution C did not see herself as an administrator even though she had the title of director, but as a worker doing a job for an employer. The

director of Institution A reported a general background of educational experience which he felt contributed greatly in terms of experience.

Question I - Highest earned degree of director

Institution	Degree
A	Masters
B	Doctorate
C	Masters
D	Doctorate

Director of Institution C held a masters degree in English.

Summary

The demographic data collected from the institutions investigated showed that enrollment varied from 9,000 students to 40,820. The number of students enrolled in education by institution varied from 1,396 to 11,246. The questions asked for full-time equivalent students, but the investigator learned that this information could not be supplied with complete accuracy by the institutions.

Two of the IRC Directors held doctoral degrees and were the only directors that were currently teaching.

Three of the four directors had elementary and/or secondary teaching experience. This seems to suggest elementary and secondary experience is considered important in the selection of an IRC Director.

Formal course work in media preparation ranged from none to 148 semester hours. During the interviewing the

investigator received the impression that media preparation had a positive influence upon the directors' attitudes toward media needs and future IRC involvement.

Section Two - Philosophy

The importance of various concepts in the rationale or philosophy on which an IRC should be based is reported in this section. Each director was asked to indicate the extent of his agreement or disagreement with each statement. The importance was indicated by placing the proper number in the space provided before each sentence according to the following code:

1. Very Important
2. Important
3. Not Very Important
4. Not Important

Response Analysis

Question A - IRC professional staff should hold academic rank

Very Important	3	(75%)
Important	1	(25%)

Question B - Advisory board for IRC

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Question C - Organizing library, curriculum, and media resources within College of Education is desirable from students' point of view

Very Important	1	(25%)
Important	3	(75%)

Question D - IRC should be located within the main education building

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Question E - IRC should be a place for individualized learning

Very Important	3	(75%)
Important	1	(25%)

Question F - IRC should encourage new approaches to instruction

Very Important	1	(25%)
Important	3	(75%)

Question G - IRC should be center for learning resources for all courses within college of education

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Question H - IRC should strengthen teaching-learning process

Very Important	2	(50%)
Important	2	(50%)

Question I - IRC should be primarily faculty oriented

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Question J - IRC should be primarily student oriented

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Question K - IRC should be equally student, faculty oriented

Very Important	3	(75%)
Important	1	(25%)

Summary

Data collected indicated the IRC should not be primarily faculty oriented. Reference to Table 1A, indicates that institutions have less need for servicing the college of education faculty. The reason could be college of education faculty in smaller institutions have closer physical proximity to the institutional media center and library; therefore, duplication of services would be greater. During the interview the IRC directors stated the two largest IRC's had advisory committee, which might indicate part of the reason for their IRC growth.

Section Three - Functions

Section three reports the directors' responses to questions asked with regard to the role or functions the IRC should perform in order to operate properly. The degree importance of each function was indicated by placing the proper number in the space provided before each sentence according to the following code:

1. Very Important
2. Important
3. Not Very Important
4. Not Important

Response Analysis

Question A - Students should have access to equipment for quickly making locally produced materials

Very Important	3	(75%)
Important	1	(25%)

Question B - IRC should provide learning laboratories for student use

Very Important	3	(75%)
Not Very Important	1	(25%)

Question C - IRC should provide consultation directly to students

Very Important	3	(75%)
Important	1	(25%)

Question D - IRC should provide equipment for check-out by students

Very Important	2	(50%)
Not Very Important	2	(50%)

Question E - Faculty should have access to equipment for quickly making locally produced materials

Very Important	4	(100%)

Question F - IRC should provide equipment for check-out by faculty

Very Important	3	(75%)
Important	1	(25%)

Question G - Learning laboratories require supervision

Very Important	4	(100%)

Question H - IRC professional personnel should serve as I.D. consultants for the instructional programs in college of education

Very Important	3	(75%)
Important	1	(25%)

Question I - IRC should assist in planning of new facilities for college of education

Very Important	3	(75%)
Important	1	(25%)

Question J - IRC professional staff should assist in curriculum planning in college of education

Very Important	1	(25%)
Important	1	(25%)
Not Very Important	2	(50%)

Question K - IRC staff should assist in budget planning of Institutional Media Center

Very Important	1	(25%)
Important	2	(50%)
Not Very Important	1	(25%)

Question L - IRC staff should assist in budget planning of Institutional Library

Very Important	1	(25%)
Important	2	(50%)
Not Very Important	1	(25%)

Question M - IRC staff should assist in budget planning of College of Education

Very Important	1	(25%)
Important	2	(50%)
Not Very Important	1	(25%)

Question N - IRC staff should request resources for purchase to Institutional Media Center, Library, and College of Education

Very Important	3	(75%)
Important	1	(25%)

Question O - IRC staff should assist in selection of new faculty for College of Education

Very Important	1	(25%)
Important	2	(50%)
Not Very Important	1	(25%)

Question P - IRC staff should assist in selection of new staff for Institutional Library

Very Important	1	(25%)
Important	1	(25%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Question Q - IRC staff should assist in selection of new staff for Institutional Media Center

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Summary

Instructional development was listed by the directors as very important but assisting in curriculum planning was not listed as important. The investigator considers instructional development as an integral part of curriculum planning; therefore, this response appears to need further investigation.

The data appear to indicate inconsistency in regard to budgets for the IRC. The directors reported that it is important for the IRC to request budgets for resources from institutional library, instructional media center, and college of education. However, the directors did not place equal importance on assisting in budget planning of each of these departments.

Assisting in budgeting was indicated low in importance possibly because in actuality the directors did not currently participate in their instructional media center college of education budget planning.

Section Four - Resources

Section four is divided into two divisions, material resources and equipment resources, in each of which directors were asked to indicate how important each resource listed was to the operation of an IRC. Directors also indicated the importance of any additional resources

in open-ended responses. The information was indicated by placing the proper number in the space provided before each listed resource according to the following code:

1. Very Important
2. Important
3. Not Very Important
4. Not Important

For each listed resource the directors were asked to indicate their particular centers current holdings, current deficiences, and the number needed for an ideal program.

Response Analysis

First Division - Material Resources

This division presents data on material resources, commonly referred to as media software.

Question 1 - 8mm Films

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	132	66	198
B	0	100	500
C	0	0	0
D	30	45	120

Question 2 - 16mm Films

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	341	171	512
B	0	200	1000
C	0	0	0
D	25	75	150

Question 3 - Filmstrips

Very Important	2	(50%)
Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2516	629	3145
B	500	1000	2000
C	50	5	500
D	100	10	310

Question 4 - Slide Sets

Important	2	(50%)
Not Very Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	8	0	8
B	15	75	100
C	0	10	10
D	1	4	20

Question 5 - Transparencies

Very Important	1	(25%)
Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	124	93	217
B	1000	2000	5000
C	0	100	100
D	0	15	30

Question 6 - Pre-Recorded TV Tapes

Very Important	1	(25%)
Important	2	(50%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	99	99
B	6	0	100
C	0	0	0
D	2	40	75

Question 7 - Disc Recordings

Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	290	72	362
B	250	500	500
C	50	10	200
D	0	20	50

Question 8 - Pre-Recorded Audio Tapes

Very Important	2	(50%)
Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	139	35	174
B	200	0	100
C	20	4	100
D	45	20	100

Question 9 - Multimedia Kits

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	81	61	142
B	9	18	20
C	15	2	30
D	0	5	15

Question 10 - Picture Sets

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	149	37	186
B	100	0	50
C	5	1	20
D	0	10	10

Question 11 - Maps

Important	1	(25%)
Not Very Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	50	50
B	100	0	25
C	0	20	30
D	0	10	10

Question 12 - Globes

Important	1	(25%)
Not Very Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	50	50
B	17	25	30
C	0	0	2
D	0	4	6

Question 13 - Models

Important	1	(25%)
Not Very Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	75	75
B	0	15	25
C	2	0	0
D	0	5	10

Question 14 - Programmed Materials

Important	3	(75%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	75	75
B	300	0	50
C	40	0	40
D	0	6	12

Question 15 - Current Textbooks

Very Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	6,155	1,539	7,694
B	10,000	0	1,500
C	3,000	0	3,000
D	600	100	700

Question 16 - Reference Books

Very Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	10	10
B	400	0	250
C	1,000	0	1,050
D	300	200	500

Question 17 - Microfilms

Very Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,301	130	1,431
B	0	0	0
C	0	0	0
D	0	0	0

Question 18 - Microfiche

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	33,256	0	33,256
B	2,000	0	2,500
C	200	0	200
D	0	0	0

Question 19 - Curriculum Guides

Very Important	3	(75%)
Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2,802	280	3,082
B	2,000	1,000	1,000
C	300	30	363
D	200	50	250

Question 20 - Periodicals

Very Important	1	(25%)
Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2,703	270	2,973
B	0	0	20
C	10	0	10
D	0	10	20

Question 21 - Newspapers

Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	6	0	6
B	0	3	10
C	0	0	0
D	0	0	0

Question 22 - Masters & Doctoral Theses in Education

Very Important	1	(25%)
Important	1	(25%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0		*
B	900		*
C	50		*
D	8		*

*One per graduate

Question 23 - Pamphlets

Very Important	1	(25%)
Important	2	(50%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	3,555	889	4,444
B	0	30	30
C	200	0	200
D	0	0	0

Question 24 - (open-ended) Product Catalogues

Very Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,579	0	1,579
D	40	0	40

Question 25 - (open-ended) Documents

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	192	0	192

Question 26 - (open-ended) Curriculum Development Projects

Very Important 1 (25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,799	0	1,799

Second Division - Equipment Resources

This division presents data on equipment resources, commonly referred to as media hardware.

Question 1 - Audio Only

a. Record Players

Very Important 3 (75%)
Not Important 1 (25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	11	4	15
B	3	2	5
C	1	0	1
D	6	2	8

b. Public Address and Voice Reenforcement (including Intercom)

Important 1 (25%)
Not Very Important 2 (50%)
Not Important 1 (25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1	0	1
C	0	0	0
D	0	1	2

c. Tape Recorders & Duplicators

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	37	9	46
B	6	3	9
C	1	0	1
D	12	15	15

Question 2 - Television Equipment, Production & Distribution

a. Broadcast

Not Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	0	0
C	0	0	0
D	0	0	0

b. Closed Circuit

Very Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1	9	10
C	0	0	0
D	2	3	5

c. Portables

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	3	2	5
B	4	6	10
C	0	0	0
D	1	2	2

Question 3 - Photographic Cameras

a. Instamatic

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	19	4	23
B	1	1	5
C	0	0	0
D	0	0	0

b. 2¼ x 2¼

Very Important	1	(25%)
Not Very Important	2	(50%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	1	1
C	0	0	0
D	4	2	12

c. 35mm

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	8	0	8
B	2	1	5
C	0	0	0
D	6	6	12

d. Process

Very Important	2	(50%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	1	2
B	0	1	3
C	0	0	0
D	1	1	2

e. 35mm copy

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	0	1
B	1	1	2
C	0	0	0
D	1	1	2

Question 4 - Darkroom Equipment

a. Enlargers

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	6	0	6
B	0	1	5
C	0	0	0
D	1	5	6

b. Dryers

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2	0	2
B	0	1	5
C	0	0	0
D	1	1	2

c. Printers

Very Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2	0	2
B	0	1	5
C	0	0	0
D	0	0	0

d. Processors

Very Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	1	5
C	0	0	0
D	2	6	10

e. Sinks

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	5	0	5
B	0	1	5
C	0	0	0
D	1	2	3

f. Washers

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	0	1
B	0	1	5
C	0	0	0
D	1	1	2

Question 5 - Graphic Equipment

a. Copy Machines

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	9	0	9
B	3	0	5
C	0	0	0
D	2	0	2

b. Duplicators

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	3	0	3
B	2	0	3
C	0	0	0
D	2	2	4

c. Lettering Devices

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	100	25	127
B	2	1	5
C	0	0	0
D	1	12	15

d. Hot & Transfer Presses

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	0	1
B	3	1	4
C	0	0	0
D	3	1	4

e. Laminators

Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	9	0	1
B	0	1	2
C	0	0	0
D	0	0	0

Question 6 - Motion Picture Equipment (8 & 16mm)

a. Motion Picture Sound

Very Important	1	(25%)
Important	1	(25%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	1	2
B	0	3	5
C	0	0	0
D	0	6	10

b. Motion Picture Editing

Very Important	1	(25%)
Important	2	(50%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2	2	4
B	0	3	5
C	0	0	0
D	1	5	10

c. Motion Picture Processing

Not Very Important	2	(50%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	0	0
C	0	0	0
D	0	1	1

Question 7 - Projection Screens

a. Microfiche

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	3	1	4
B	1	0	2
C	1	0	1
D	0	0	0

b. Microfilm

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2	1	3
B	1	0	2
C	0	0	0
D	0	0	0

c. Micro-opaque

Important	1	(25%)
Not Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	1	2
C	0	0	0
D	0	0	0

Question 8 - Projectors

a. Filmstrip

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	13	0	13
B	3	1	5
C	1	0	1
D	8	2	10

b. Motion Picture

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	45	12	57
B	2	6	8
C	0	0	0
D	8	6	20

c. Opaque

Important	1	(25%)
Not Very Important	2	(50%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	5	0	5
B	1	2	3
C	0	0	0
D	1	2	4

d. Overhead

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	16	3	19
B	4	2	6
C	0	0	0
D	10	2	12

e. Slide

Very Important	1	(25%)
Important	1	(25%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	30	6	36
B	4	4	8
C	0	0	0
D	1	3	4

Question 9 - Projection Screens

a. Portable

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	5	0	5
B	1	10	5
C	0	0	0
D	0	2	2

b. Mounted

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	30	0	30
B	40	10	50
C	0	0	0
D	9	1	10

Question 10 - Projection Stands

a. Portable

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	25	3	28
B	3	2	10
C	0	0	0
D	12	2	16

b. Permanent

Very Important	1	(25%)
Not Important	3	(75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1	0	1
C	0	0	0
D	0	0	0

Question 11 - System, Learning Labs

a. Programmed-Learning Devices

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	2	2	5
C	0	0	0
D	0	2	6

b. Reading Devices

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1	0	1
C	0	0	0
D	0	2	4

c. Self-Study Lab (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
D	1	1	2

Summary

Data results indicate the IRC Directors were generally conservative in estimating the need for resources in their respective IRC's. Generally, the IRC Directors added current holdings and current deficiencies and listed these figures for their ideal program.

Maps, charts, and models were listed low in importance but directors stated examples of each should be included in a center.

Graphic equipment used for local production was indicated to be very important, but equipment used for high quality production was listed of little importance. This indicates to the investigator high quality production

equipment that is quite expensive should be located in the institutional media center.

Section Five - Personnel

Section five asked the IRC directors to evaluate the importance of personnel, both professional and technical-clerical, for inclusion in an IRC. Each director was asked to indicate the number of personnel they currently employed, current deficiencies, and number needed for an ideal program.

Response Analysis

Question A - Professional

1. Media Administrator

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1 1/2	0	1 1/2
B	3/4	1/4	1
C	0	0	0
D	1/2	1/2	1

2. Instructional Media Specialist

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	5 1/2	0	5 1/2
B	1/4	3/4	1
C	0	0	0
D	0	0	0

3. Message Design Specialist

Very Important	1	(25%)
Not Very Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1/2	1/2	1
C	0	0	0
D	0	0	0

4. Resource Librarian

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CH)	Ideal (IP)
A	4	4	8
B	1/4	3/4	1
C	5/8	0	5/8
D	0	0	0

5. Curriculum Specialist

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CH)	Ideal (IP)
A	0	1	1
B	1/4	3/4	1
C	5/8	0	5/8
D	0	0	0

6. Graphic Consultant (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CH)	Ideal (IP)
A	1	0	1

Question B - Technical-Clerical

1. Graphic Artist

Very Important	1	(25%)
Important	1	(25%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CH)	Ideal (IP)
A	0	1	1
B	1/4	3/4	1
C	0	0	0
D	0	0	0

2. Photographer

Important	2	(50%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1/4	3/4	1
C	0	0	0
D	0	0	0

3. Cataloger

Very Important	2	(50%)
Not Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	1/2	1/2	1
C	0	0	0
D	0	0	0

4. Supervisors for teaching laboratories and resources.

Very Important	2	(50%)
Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1	2	3
B	1	1	2
C	0	0	0
D	0	1	1

5. Clerk

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	3	2	5
B	1 1/2	1/2	2
C	0	0	0
D	1/2	1/2	1

6. Student Assistant

Very Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	10	0	10
B	3	2	5
C	0	0	0
D	3	2	5

7. Programmer

Not Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	0	0
C	0	0	0
D	0	0	0

8. Graduate Assistant (open-ended)

Very Important 3 (75%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	2	4	6
B	3	2	5
D	1/2	1/2	1

Summary

Response data on personnel listed the importance of curriculum specialist very high but the responses to section three, question J on functions appeared to be contradictory when directors indicated low importance for IRC professional staff to assist in curriculum planning. This indicated some inconsistency.

Most directors reported that they were rather satisfied with the number of personnel employed by their IRC. This response appears rather unusual to the investigator because an administrator is often regarded as an empire builder, while this response would indicate the opposite.

Section Six - Space and Environment

Section six asked questions to determine the value of the space and environment that an IRC should provide. The second part of each question asked directors to indicate the number of square feet their center currently held, the number that was currently deficient, and the number needed to operate an ideal program, assuming the number of faculty and students remain constant.

Response Analysis

Question A. Exhibit Display Area

Very Important	3	(75%)
Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	690	690
B	1,000	500	1,500
C	45	0	45
D	192	24	216

Question B. Equipment Operation

Very Important	3	(75%)
Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	902	0	902
B	1,200	300	1,500
C	4	0	4
D	500	500	1,000

Question C. Production

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	420	420	840
B	144	156	300
C	0	0	0
D	120	120	240

Question D. Reading

Very Important 4 (100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	9,456	2,544	12,000
B	1,000	1,000	2,000
C	270	0	270
D	96	25	121

Question E. Small Group Conference

Very Important 2 (50%)
Important 2 (50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	288	576	864
B	900	900	1,800
C	0	0	0
D	0	120	120

Question F. Preview

Very Important 2 (50%)
Important 2 (50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	199	411	630
B	900	900	1,800
C	9	0	9
D	50	100	150

Question G. Audio Listening

Very Important 2 (50%)
Important 2 (50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	*	*	*
B	160	40	200
C	0	0	0
D	80	80	160

*Director stated it was impossible for him to separate audio listening because it was combined with so many other areas.

Question H. Office

Very Important	2	(50%)
Important	2	(50%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,145	1,955	3,100
B	240	160	400
C	36	0	36
D	120	30	150

Question I. Storage

Very Important	3	(75%)
Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	800	2,535	3,335
B	140	160	300
C	80	0	80
D	30	80	110

Question J. Darkroom

Very Important	2	(50%)
Not Very Important	1	(25%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	473	121	594
B	120	480	600
C	0	0	0
D	64	126	200

Question K. Computer

Not Important	4	(100%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	0	0
C	0	0	0
D	0	0	0

Question L. Internal Processing

Very Important	2	(50%)
Important	1	(25%)
Not Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,040	1,040	2,080
B	200	300	500
C	72	0	72
D	64	20	84

Question M. Book Shelving

Very Important	3	(75%)
Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	*	*	*
B	3,500	1,500	5,000
C	405	0	405
D	75	30	105

*Institution A had at least three times more shelving than any institution surveyed. The director in this institution stated he felt it was too much to measure.

Question N. Experimental Classroom

Important	3	(75%)
Not Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	0	0
B	0	2,200	2,200
C	0	0	0
D	0	600	600

Question O. Television (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
D	400	200	600

Question P. Graphic Classroom (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	1,333	1,333	2,666

Question Q. Periodical Room (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	144	3,856	4,000

Question R. Curriculum Laboratory (open-ended)

Very Important	1	(25%)

Institution	Holding (CH)	Deficiencies (CD)	Ideal (IP)
A	0	2,000	2,000

Summary

Two questions in this section received 100 percent common agreement but were at opposite ends of the important scale. The reading area was reported as very important while the computer area was listed as not important. Many schools of educations include computer areas for student use, but the IRC directors did not indicate that this was a resource that should be included in an IRC. The investigator feels that if the IRC is to serve as a unified resource center for the school of education, it should include an area for computers.

The investigator draws attention to the fact all space reported in this area cannot be added to equal the total square footage of each individual IRC because one space might be reported under several different areas because of multi-purpose use.

Section Seven - Budget and Finance of the Instructional Resource Center

Section seven reports the budget required to support the four institutions IRC's investigated. The individuals controlling the budgets in the various institutions and the particular method used to determine each individual institution's budget and finances are also reported.

Response Analysis

Question A - Best description of current budget

Adequate	1	(25%)
Not Very Adequate	2	(50%)
Not Adequate	1	(25%)

Question B - To whom budget request were directly submitted

Chief administrative officer for total university	1	(25%)
Chief administrative officer for School of Education	3	(75%)

Question C - Direct control over budget after approved

1. Director of IRC
2. Associate Dean of Education
3. Chairman Secondary Education
4. Dean-School of Education

Question D - Budget base

Need	2	(50%)
Negotiation	1	(25%)
Proportional	1	(25%)

One institution reported that its budget was based primarily on need but the number of students enrolled in teacher education was taken into account.

The one institution that reported a proportional base also reported that the allocation were based as the Dean saw the needs.

Question E - Capitalization

1. Total dollar value of equipment IRC has unlimited access to.

Institution	Dollar Value
A	$126,752
B	$20,000
C	$4,000
D	$29,400

2. Equipment IRC has limited access to

Institution	Equipment Access
A	Any equipment on campus that is not in use
B	Rental from AudioVisual Center
C	None
D	Any equipment on campus that is not in use

3. Yearly capital outlay for equipment

Institution	Dollar Value
A	$6,300
B	$5,000
C	$200
D	$6,000

4. Yearly capital outlay for supplies purchased

Institution	Dollar Value
A	$1,700
B	$400
C	*
D	$200

*No Amount Specified

5. Yearly capital outlay for software

Institution	Dollar Value
A	$26,000
B	$4,000
C	$300
D	$1,000

Summary

Most of the IRC directors considered their current budget funding as not very adequate. Dollar value of equipment owned ranged from $4,000 to $126,752. The investigator suggests that the wide range may be due in part to the length of time an IRC had been in operation.

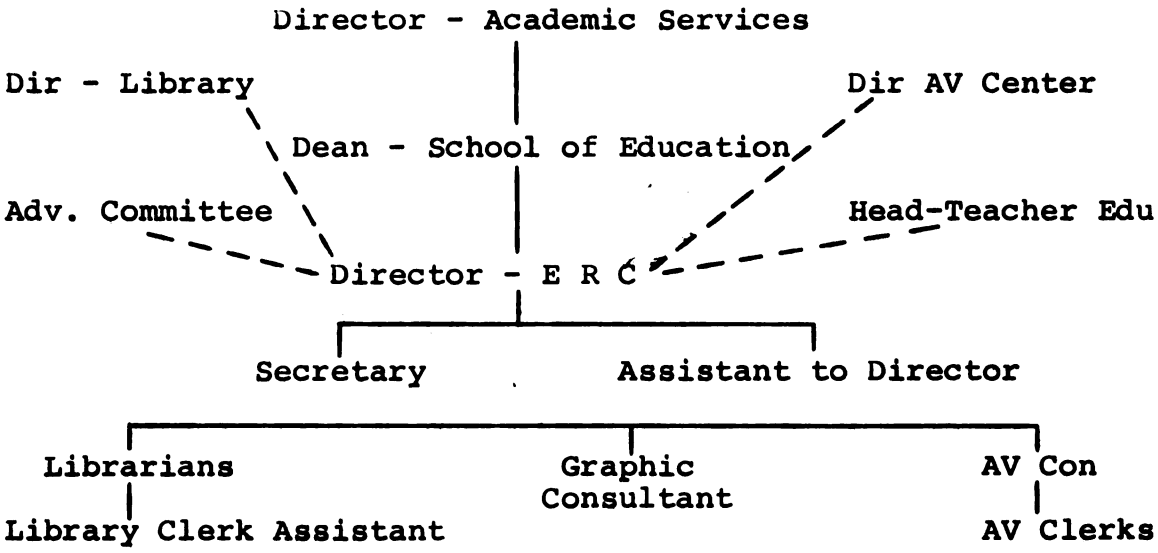
The wide ranges of figures on such a limited number of institutions makes this study impractical to analyze the numerical data statistically.

Section Eight - Administrative Organization

In this section the administrative organization under which each IRC operated is reported. Each IRC director was asked to list the line and staff organization that operates at each particular institution and to describe an organizational pattern they felt would better serve the IRC needs.

Part A of this question asked the IRC directors to list the line and staff organization that operated at their institution.

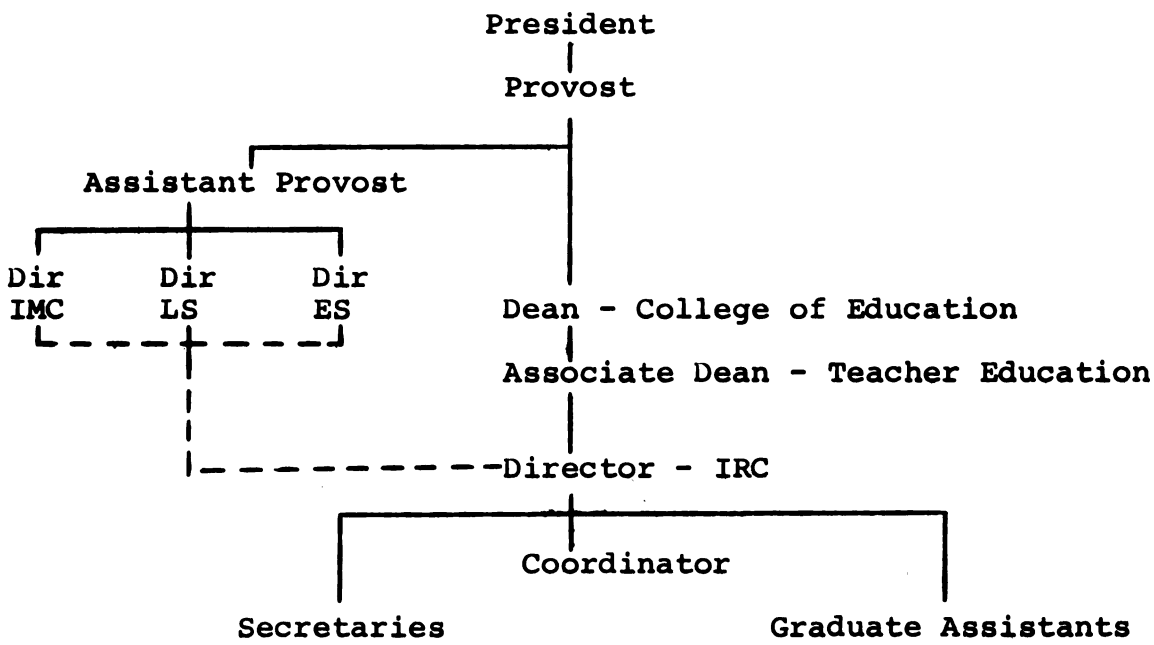
Institution A reported the following:



---- Advisory

____ Authority

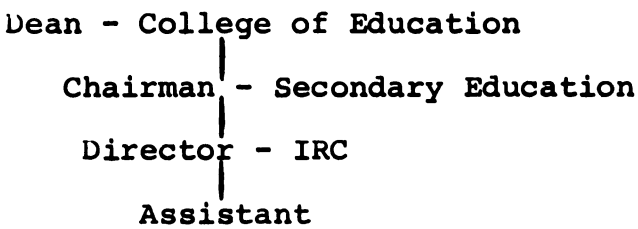
Institution B reported the following:



---- Advisory

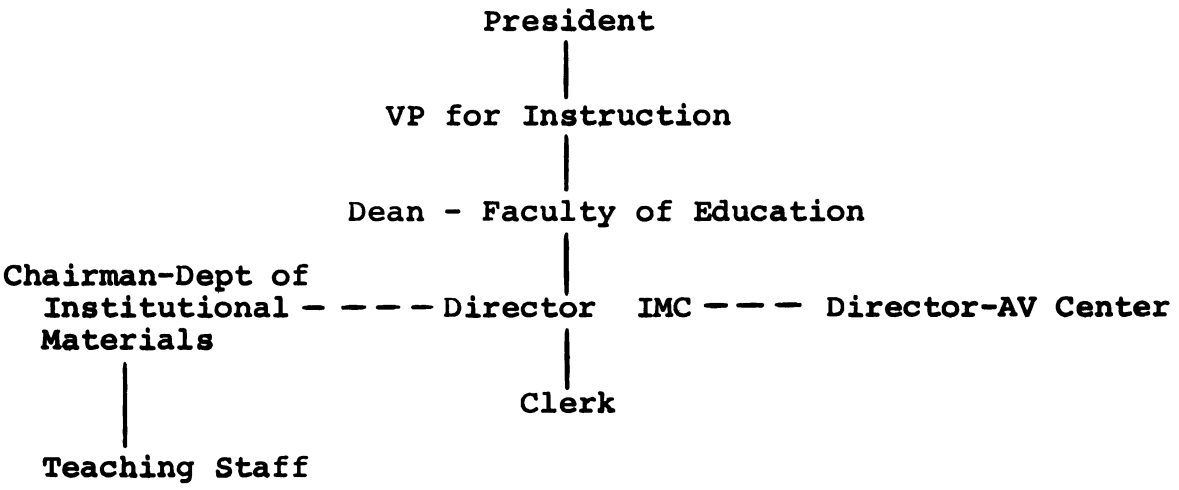
____ Authority

Institution C reported:



____ Authority

Institution D reported the following:



---- Advisory

____ Authority

Part B of question eight asked the IRC directors to indicate an organizational pattern that they felt would better serve the IRC needs. Directors of Institutions A, B, and C indicated that they felt their present organizational pattern best met the needs of their particular IRC. The director of Institution D stated the only improvement to better serve the IRC needs was for the institution to staff the Chairman for the department of instructional materials and Director of the audiovisual center with two separate individuals rather than with only one person in charge of both organizations as at present.

CHAPTER V

DISCUSSION AND GUIDELINES

Discussion

The purpose of this study was to establish guidelines for the formulation of an instructional resource center with the belief such a center would contribute directly and importantly to the instructional process for the training of teachers and that it could be a significant factor in the improvement of instruction. The guidelines were to be developed for the establishment and operation of an instructional resource center in a college of education.

The guidelines for an instructional resource center were to be developed by reviewing the significant professional literature regarding instructional resource centers and by surveying selected institutions that had established instructional resource centers in the college (department) of education.

In an attempt to set forth resource center guidelines, it must be realized it is a difficult task to establish the ideal resource center because the needs of the faculty and students are constantly changing.

The establishment of a philosophy is one of the first necessary guides in the development of an IRC that is

designed to serve as a strong link in the teaching-learning process. This philosophy generally should include a logical discussion of the aims and goals of the center with respect to its functions and operations. The IRC concept has evolved in the search for improved educational programs. It attempts to utilize and unify learning resources so that the individual student has a place where he can learn at his own rate and on his own level of comprehension.

Physical facilities of an IRC need to be congruent with its established philosophy. Since effective communications is a major function of education, the communications process should serve as a basis for the operation and design of an IRC. In general the design should allow for the least difficulty in natural movement. More specifically, the area should be attractive, convenient, and flexible. Measures should be taken to insure sound reduction, good illumination, and effective climate control to promote student alertness.

The effective functioning of an IRC greatly depends on the quality of its personnel. Professionals agree that it would be good to have all personnel competent in the use of all media, but they realize that this is an unrealistic thought. As a result, IRC personnel have been classified according to their responsibilities. A major time-consuming function is planning for resources. This is a vital and

constant process to keep the center up to date. The most important person is the director of the Center. Studies in administration have shown that the success or failure of most organizations is directly influenced by the person at the top in charge of the organization. Therefore, the director should be a topnotch educator committed to the center's philosophy. He should be a person who can execute and formulate policies, can work with people, be grounded in technical as well as educational theory and principles, be knowledgeable in current educational innovations, and be able to plan and execute budgets. The number of personnel needed for an IRC is dependent on factors of budget limitations, space limitations, and the commitment to the center by the college (department) of education, library, and medial center.

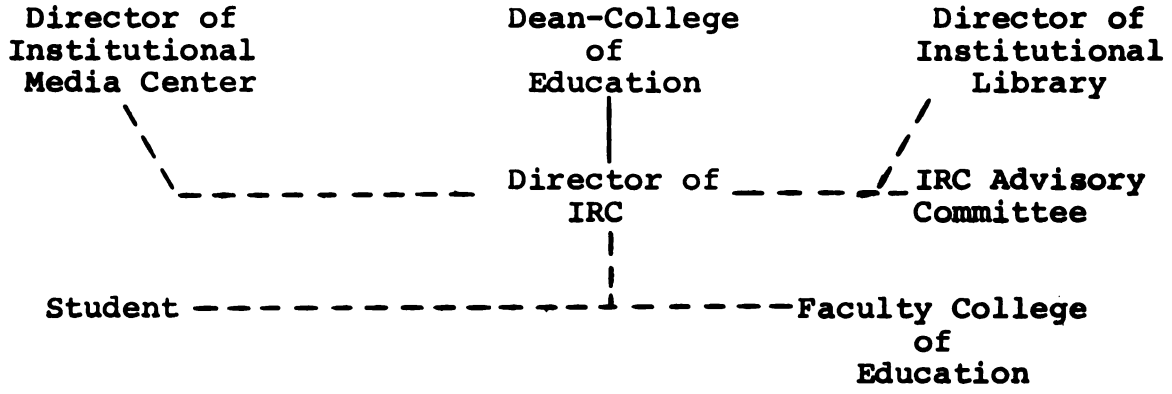
Because learning is an individual process, attempts for more individualized instruction are being made in most educational programs. Media lend themselves well to this type of independent study. The materials used should not determine the curriculum, but rather the materials should be adapted to serve the students and satisfy course objectives. The IRC should function to make these learning resources available to all students.

Many times commercially produced materials are not adequate for the particular needs of students and faculty.

Therefore, it is important that the IRC provides an area where these people can design and produce their own materials. The persons involved in this production normally have great interest in it, and as a result, learning occurs. Formal organization and management of this production facility need to be established. Many schools are promoting the self-instructional production laboratory with little or no supervision.

According to the philosophy, the IRC should be formulated to function as a vital link in the teaching-learning process. Therefore, it is essential that the professional personnel of the IRC serve as instructional consultants for faculty in the college (department) of education, assisting in the systematic improvement of the curriculum and courses within the curriculum. Limited resources and facilities in higher education have brought increasing concern for cost effectiveness in instruction. Instructional improvement can play a positive role in helping alleviate these problems by placing a sense of high priority to the improvement of instruction through controlled experimentation and practical research within the classroom. The IRC could provide the facilities for this planning and execution of pilot studies of controlled experimentation. Facilities need to be provided with possible television equipment so this experimentation may be recorded for later microanalysis of the process.

The following chart suggests a good administrative organization for an IRC within the College of Education for maximum cost effectiveness in the improvement of instruction.



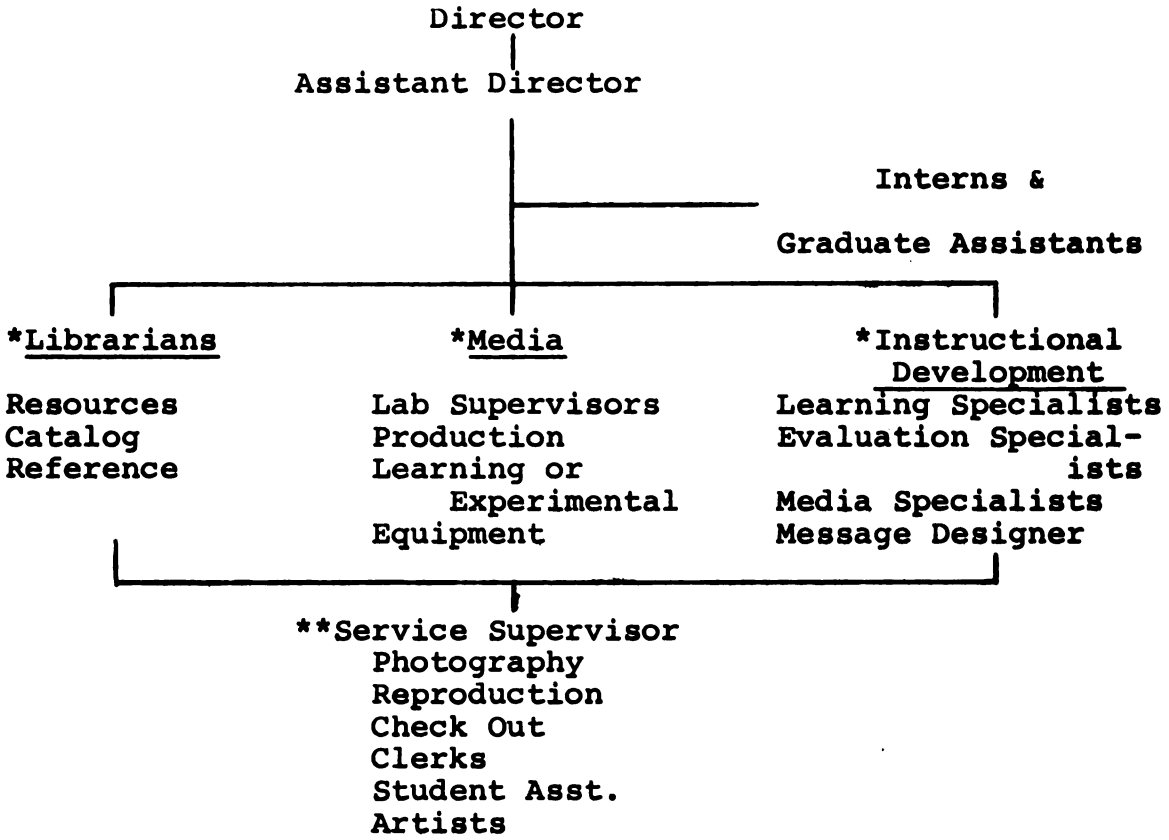
---- Advisory

____ Authority

The advisory committee should be composed of three to ten members including a representative from each department or division within the School of Education, the director of the Media Center, director of the Library, students from the School of Education, director of IRC, and the Dean of the School of Education serving as chairman of the group. The main functions of the advisory committee should be to assist in determining the IRC needs and the distribution of its resources and services.

The following is the line and staff organization of the personnel of the IRC within the College of Education.

The guidelines are for a fully developed center, a state which would be reached after the center had been functioning for a few years.



*These people would be professional educators in which part of their responsibility would be teaching.

**These people would be technical, paraprofessional, or student type personnel.

It must be clearly stated that the IRC would not duplicate any services that might be in existence in the University unless the advisory committee found it to be more economical and/or functional.

Guidelines

The following are specific suggested guidelines which were formulated from the analysis of data reported in the study.

Philosophy

1. The Professional staff of the IRC should hold academic rank.
2. The IRC should provide instructional support and assist in faculty-assigned student projects, and should directly support students involved in their own projects.
3. The IRC should be a place where a student can go to learn at his own rate and level of understanding with resources available at different levels of comprehension.
4. The IRC should be formed with the idea that unified learning resources will strengthen the link in the teaching-learning process.

Summary: Professional IRC staff should assist in seeking solutions to faculty and student identified teaching-learning problems. The IRC should encourage preplanning and evaluation of resources and procedures to promote maximum efficiency of the use of the center's personnel, equipment, and materials.

Functions

For the Student:

1. Students should have access to equipment for quickly making locally-produced materials such as thermofax transparencies or slide-tape programs.
2. The IRC should provide learning laboratories for use by students.
3. The IRC should provide consultation and services directly to students.
4. The IRC should provide material and equipment resources directly to students.

Summary: The IRC should seek student suggestions and evaluation of the services and resource provided, then use these suggestions for implementation and operation of the IRC as far as feasible.

For the Faculty:

1. Faculty should have access to equipment for quickly making locally-produced materials such as thermofax transparencies or slide-tape programs.
2. The IRC should provide equipment for check-out by the College (Department) of Education faculty.
3. The IRC professional personnel should serve as instructional development consultants for the application and development of technology in the

instructional programs in the College (Department) of Education.

Summary: The IRC should provide an environment with a degree of informality and flexibility to encourage education faculty to seek IRC staff for assistance in possible solution to teaching-learning problems.

For the IRC Staff:

1. The IRC should provide supervision if learning laboratories are included.
2. The Professional staff of the IRC should be involved in planning new facilities for the College (Department) of Education.
3. The Professional staff of the IRC should request materials, services, and equipment to the Instructional Media Center, Library, and College (Department) of Education for purchase.

Summary: The IRC staff should have an integrated assignment of teaching and instructional development to serve the students and faculty in teacher education.

Material Resources (Suggested Group order of importance)

	Current Textbooks
Group I	Reference Books
	Curriculum Guides
	Filmstrips
	Pre-Recorded Audio-Tapes
	16mm Films
Group II	Transparencies
	Multimedia Kits
	Picture Sets
	Periodicals
	8 mm Films
	Disc Recordings
	Pre-Recorded RV Tapes
Group III	Programmed Materials
	Microfiche
	Pamphlets
	Slide Sets
	Master & Doctoral Thesis in Education
	Maps
Group IV	Globes
	Models
	Newspapers
	Microfilms

Equipment Resources (Suggested Group order of importance)

	Record Players
	Copy Machines
Group I	Duplicators
	Hot & Transfer Presses
	Mounted Projector Screens
	Portable Projector Stands
	Tape Recorders & Duplicators
	Portable Television Equipment
	35mm Copy Camera and Equipment
Group II	Lettering Devices
	Programmed-Learning Devices & Lab
	Reading Devices and Lab
	35mm Cameras
	Enlargers for Darkroom
	Dryers for Darkroom
	Sink for Darkroom
Group III	Washers for Darkroom
	Motion Picture Editing Equipment
	Filmstrip Projectors
	Motion Picture Projector
	Overhead Projectors

Process Cameras

Motion Picture Sound Equipment

Slide Projectors

Group IV Instamatic Cameras

2¼ x 2¼ Camera

Microfiche Equipment

Microfilm Equipment

Portable Screens

Personnel (Suggested order of importance)

Professional

1. Media Administrators
2. Resource Librarian
3. Curriculum Specialist
4. Instructional Media Specialist
5. Message Designer

Technical-Clerical

1. Student Assistant
2. Clerk
3. Supervisors for teaching laboratories and resources
4. Cataloger
5. Graphic Artist
6. Photographer

In a small center one individual would serve in several different roles but as need arises the specialists should be employed in order of importance listed above.

Space and Environment (Suggested Group order of importance)

	Reading Area
	Equipment Operation Area
Group I	Display Area
	Preview Area
	Audio-Listing Area
	Book Shelving
	Office Area
Group II	Storage Area
	Small Group Conference Area
	Production
	Internal Processing
Group III	Darkroom
	Experimental Classroom
	Television Area

Budgets

Budget should be based on need. This need will depend upon the potential number of students and faculty the IRC will serve and the functions which the center hopes to perform.

Administrative Organization

The person in charge of the IRC should be called Director. The IRC Director should report directly to the Dean of the College of Education. It would be advisable for the teaching faculty of media to serve directly under the IRC director and as specialists and consultants for the IRC.

Limitations of Study

1. The instrument needs to be administered to a larger sample of institutions, whereby, making it possible to formulate specific guidelines on the suggested amounts of material and equipment resources an instructional resource center should include.
2. The instrument needs to be used comparing institutions of similar size with sampling through the nation.
3. There is need for investigation into the historical development of existing Instructional Resource Centers for College of Education to give further insight into the formulation of guidelines.

Implications for Further Research

This investigation was only one small part in the development of guidelines for an instructional resource

center in the college of education. There is a great need to verify the application of these guidelines into other possible sub-centers in medical education, science education, and many other areas. At present these sub-centers for the most part are being formulated without formal guiding principles. The hope of this investigator is the guidelines developed from this study will assist in the development and organization of sub-centers to obtain better efficiency.

BIBLIOGRAPHY

BIBLIOGRAPHY

Artz, Delphine and Others. The Instructional Materials Center. Bulletin No. 369. Lansing, Mich.: The Department of Education, 1965.

Beggs, David W. III. "Organization Follows Use ... The Instructional Materials Center," Audiovisual Instruction, IX (November, 1964), 602-604

Bernotavicz, Freda D. and Wallington, Jim. "Act of JIMS," Audiovisual Instruction, XV (May, 1970), 26-30.

Bishop, Joseph L., Jr. "Mt. San Jacinto Multi-Media Instructional System," Educational Screen and Audio-visual Guide, XLVII (September, 1968), 18-19, 37.

Bolvin, John O. "Individually Prescribed Instruction," Educational Screen and Audiovisual Guide, XLVI (April, 1968), 14-15.

Brown, James W. and Norberg, Kenneth D. Administering Educational Media. New York: McGraw-Hill Book Company, 1965.

Carpenter, C. R. and Greenhill, L. P. "Providing Conditions for Learning the 'New' Media," Higher Education: Some Newer Developments, edited by Samuel Baskin New York: McGraw-Hill Book Co., 1964.

Combs, Arthur W. The Professional Education of Teachers. Boston: Allyn and Bacon, Inc., 1965.

_____, and Snygg, Donald. Individual Behavior: A Perceptual Approach to Behavior. New York: Harper and Brothers, 1959.

Cumming, William Kenneth. "The Learning Center at Brevard Junior College," Audiovisual Instruction, XII (October, 1967), 793-797.

Diamond, Robert M. "Charge: Difficult, But Not Impossible," College Management, III (October, 1968), 23-25.

Ellsworth, Ralph E. and Wagener, Hobart D. The School Library, edited by Ruth Weinstock, A Report From Educational Facilities Laboratories, New York: Educational Facilities Laboratories, 1963.

Erickson, Carlton W. H. Administering Instructional Media Programs. New York: The Macmillan Company, 1968.

Eurich, Alvin C. "Higher Education in the 21st Century," Readings in Curriculum, edited by Glenn Hass and Kimball Wiles. Boston: Allyn and Bacon, Inc., 1965.

Frye, Harvey. "Principles of Graphic Communications." Handout in R573. Bloomington: Indiana University Summer, 1965. (Mimeographed.)

Gardner, John. "Agenda for Colleges and Universities," XXXVI (October, 1965), 359-360.

Gilliland, John W. "The Trend Toward Functional Schools," American School and University, XXXIX (March, 1967), 36-38.

Guerin, David V. "Implications of the Communications Process For School Plant Design," Audiovisual Instruction, XII (October, 1967), 815-819.

_____, "Media Influence on Design," Audiovisual Instruction, X (February, 1965), 95-97.

Green, Alan C., ed. Educational Facilities With New Media. Washington: National Education Association, The Department of Audiovisual Instruction, 1966.

Hamreus, Dale G. "Media Guide," Audiovisual Instruction, XV (May, 1970), 32-33.

Harcleroad, Fred and Others. Learning Resources for Colleges and Universities. NDEA-7B-394. Hayward, Calif.: California State College, 1964.

Hoban, Charles F., Jr. "Obstacles to the Use of Audio-Visual Materials," Audio-Visual Materials of Instruction. Forty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1949.

Horn, Francis H., King, Jonathan, and Moresseau, "Facilities and Learning," Higher Education: Some Newer Developments. edited by Samuel Baskin. New York: McGraw-Hill Book Co., 1964.

Kemp, Jerrold, "Local Production--Where Do You Begin?" Educational Screen and Audiovisual Guide, XLVI (January, 1968), 27-29.

Lewis, Philip. "From Blueprint to Reality," Educational Screen and Audiovisual Guide, XXXIII (March, 1954), 98-100.

Locke, Caroline J. "Today's Materials and Equipment," The Instructor, LXXVI (October, 1966), 58.

Masiko, Peter, Jr. and Bouwsma, Frank. "New Learning Centers Stimulate Innovation at Miami-Dade," American School and University, XXXIX (May, 1967), 60-62.

Michigan State University Editors Office. Catalog of Courses and Academic Programs. Lansing: Michigan State University Publications, 1969.

Miller, Neal. "Graphic Communications and The Crisis in Education," Audiovisual Communication Review, V (Summer, 1957), 1-120.

Philipson, Willard and Others, "An Exploration of the Learning Resources Philosophy and Services Developed in the Junior Colleges of Minnesota," Audiovisual Journal, III (November, 1968), 31-34.

"The Prospectus For Western Piedmont Community College," Morganton, North Carolina, 1964. (Mimeographed.)

Saettler, Paul. A History of Instructional Technology. New York: McGraw-Hill Book Co., 1968.

Saltzman, Stanley D. "Instructional Material Center: The Hub of Learning," Audiovisual Instruction, XIII (October, 1967), 803-804.

Sleeman, Phillip J. and Goff, Robert, "The Instructional Materials Center: Dialogue or Discord?," Audiovisual Communications Review, XV (Summer, 1967), 160-168.

Smith, Orthanel B., Cohen, Saul B., and Pearl, Authur (compilers). Teachers of the Real World. Washington: The American Association of Colleges for Teacher Education, 1969.

Swanson, Reynold A. "Improving Instruction Through Materials Center," American School Board Journal, LXXXIX (October, 1959), 47-48.

Tanzman, Jack. "The Complete AV Center--What It Takes to Do The Job," School Management, X (November, 1966), 135-141.

Taylor, Kenneth I. "Instructional Materials Center," Nation's Schools, LXVII (December, 1960), 45-50.

Thornton, James W., Jr. and Brown, James W., eds. New Media and College Teaching. Washington: National Education Association, The Department of Audiovisual Instruction, 1968.

Torkelson, G. M. "Implications of Research in Newer Education Media for the Teachers and for Teacher Education," New Educational Media. University Park, Penn.: The Pennsylvania State University, 1961.

"A Trio of Libraries: 1. Green River Community College," American School and University, XXXIX (November, 1966), 45-46.

Trump, Lloyd J. "Independent Study Centers: Their Relation to Central Library," Bulletin of the National Association of Secondary School Principals, L (January, 1966), 46-48.

Wyman, Raymond, "The Instructional Materials Center: Whose Empire?," Audiovisual Instruction, XII (February, 1967), 114-115.

APPENDIX A

QUESTIONNAIRE

INSTRUCTIONAL RESOURCE CENTER GENERAL INFORMATION QUESTIONNAIRE

Most Universities have a Central Institutional Media Center which administers a program of media services. This questionnaire is only concerned with the College or Department of Education Instructional Resource Center. Please answer the following questions as they apply to the Instructional Resource Center located in the School or Department of Education.

I. Demographic Data

A. Indicate the number of full-time students on campus enrolled in:
1. _____Institution 2. _____Education

B. Indicate the number of full-time equivalent faculty teaching in:
1. _____Institution 2. _____Education

C. Check the College or Department of Education in which you hold academic rank.
1. _____Teacher Education 2. _____Secondary Education
3. _____Educational Administration 4. _____Elementary Education
5. _____Educational Psychology 6. _____Special Education
7. _____ 8. _____Do not hold rank
(Other; please list.)

D. Indicate the academic rank you currently hold and your professional title.
1. _____ 2. _____
(Rank) (Professional Title)

E. Indicate the number of semester hours you are teaching in each course level this academic year.
1. _____Undergraduate 2. _____Graduate
3. _____Both (Comb. of 1 and 2) 4. _____Not Teaching

F. Indicate the number of years you have taught in the following areas. (Include present year.)
1. _____Elementary (Grades 1-8) 2. _____Secondary (Grades 9-12)
3. _____Junior Coll. (Grades 13-14) 4. _____University (Grades 13-up)
5. _____Present University 6. _____Total Years of Teaching Ex

G. Indicate the number of semester hours you have taken in your academic preparation from the following areas.
1. _____Media Administration 2. _____Library Resources
3. _____Media Production 4. _____Message Design
5. _____Computer Instruction 6. _____Television
7. _____Educational Research 8. _____Media Selection
9. _____Media Utilization 10. _____
11. _____ 12. _____
(Other; please list.) (Others; please list.)

H. Indicate the number of years of experience you have in the following media areas.
1. _____AV Administration 2. _____Library Administration
3. _____AV Teaching 4. _____Library Teaching
5. _____AV Industry 6. _____Library Industry
7. _____Curriculum Supervision 8. _____
(Other; please list.)

I. Indicate the highest earned degree you have completed.
1. _____Baccalaureate 2. _____Masters
3. _____Specialist 4. _____Doctorate

Please indicate the extent of your agreement or disagreement with each statement. Place the proper number in the space before each sentence according to the following code:

1. Very Important
2. Important
3. Not Very Important
4. Not Important

II. Philosophy

A. _____The professional staff of the IRC should hold academic rank

B. _____There should be an advisory board elected from the College (Dept.) of Education to give direction to the IRC.

C. _____Organizing library, curriculum, and media resources and services within the College (Dept.) of Education is desirable from student's point of view.

D. _____The School (Dept.) of Education regardless of size, should have an IRC within the main building where the College (Dept.) is located.

E. _____The IRC should be a place where a student can go to learn at his own rate and level of understanding with resources available at different levels of comprehension.

F. _____The IRC should encourage new approaches to instruction through research and experimentation.

G. _____The IRC should be the center of learning resources for all courses within the College (Dept.) of Education.

H. _____The IRC should be formed with the idea that unifying learning resources will strengthen the link in the teaching-learning process.

I. _____The IRC should be primarily faculty oriented. i.e. instructional services and research.

J. _____The IRC should be primarily student oriented. i.e. instructional services and research.

K. _____The IRC should provide instructional support and assist in faculty research, faculty-assigned student projects, and should directly support students involved in their own projects.

1. Very Important
2. Important
3. Not Very Important
4. Not Important

III. Functions

A. _____ Students should have access to equipment for quickly making locally-produced materials such as thermofax transparencies or slide-tape programs.

B. _____ The IRC should provide learning laboratories for use by students.

C. _____ The IRC should provide consultation and services directly to students.

D. _____ The IRC should provide equipment for check-out by the College (Dept.) of Education students.

E. _____ Faculty should have access to equipment for quickly making locally-produced materials such as thermofax transparencies or slide-tape programs.

F. _____ The IRC should provide equipment for check-out by the College (Dept.) of Education faculty.

G. _____ The IRC should provide supervision if learning laboratories are included.

H. _____ The IRC professional personnel should serve as instructional development consultants for the application and development of technology in the instructional programs in the College (Dept.) of Education.

I. _____ Professional staff of the IRC should be involved in planning new facilities for the College (Dept.) of Education.

J. _____ Professional staff of the IRC should assist in curriculum planning for courses in the College (Dept.) of Education.

K. _____ Professional staff of the IRC should assist in budget planning of the Institutional Media Center.

L. _____ Professional staff of the IRC should assist in budget planning of the Institutional Library.

M. _____ Professional staff of the IRC should assist in budget planning of the College (Dept.) of Education.

N. _____ Professional staff of the IRC should request materials, services, and equipment for purchases to the Institutional Media Center, Library, and College (Dept.) of Education for purchase.

O. _____ Professional staff of the IRC should assist in selection of new faculty for the College (Dept.) of Education.

P. _____ Professional staff of the IRC should assist in selection of new staff for Institutional Library.

^ _____ Professional staff of the IRC should assist in selection

IV. Resources

A. Indicate the value of the following resource materials that the IRC should provide by marking the appropriate number in the space before each item.

1. Very Important
2. Important
3. Not Very Important
4. Not Important

Indicate the number of items in the following columns assuming the number of faculty and students remain constant.

		Current Holding	Current Deficiencies	Ideal Program
1.	_____ 8 mm Films			
2.	_____ 16 mm Films			
3.	_____ Filmstrips			
4.	_____ Slide Sets			
5.	_____ Transparencies			
6.	_____ Pre-Recorded TV Tapes			
7.	_____ Disc Recordings			
8.	_____ Pre-Recorded Audio Tapes			
9.	_____ Multimedia Kits			
10.	_____ Picture Sets			
11.	_____ Maps			
12.	_____ Globes			
13.	_____ Models			
14.	_____ Programmed Materials			
15.	_____ Current Textbooks			
16.	_____ Reference Books			
17.	_____ Microfilms			
18.	_____ Microfiche			
19.	_____ Curriculum Guides			
20.	_____ Periodicals			
21.	_____ Newspapers			
22.	_____ Master & Doctoral Thesis in Edu.			
23.	_____ Pamphlets			
24.	_____			
25.	_____			

B. Indicate the value of the following resource equipment that the IRC should provide by marking the appropriate number on the space before each item.

Indicate the number of items in the following columns assuming the number of faculty and students remains constant.

1. Very Important
2. Important
3. Not Very Important
4. Not Important

	Current Holding	Current Deficiencies	Ideal Program
1. Audio Only			
a. _____Record Players			
b. _____Public Address and Voice Reenforcement (including Intercom)			
c. _____Tape Recorders & Duplicators			
2. Television Equipment, Production & Distribution			
a. _____Broadcast			
b. _____Closed Circuit			
c. _____Portables			
3. Photographic Cameras			
a. _____Instamatic			
b. _____$2\frac{1}{4}$ x $2\frac{1}{4}$			
c. _____35 mm			
d. _____Process			
e. _____35 mm copy			
4. Darkroom Equipment			
a. _____Enlargers			
b. _____Dryers			
c. _____Printers			
d. _____Processors			
e. _____Sinks			
f. _____Washers			
5. Graphic Equipment			
a. _____Copy Machines			
b. _____Duplicators			
c. _____Lettering Devices			
d. _____Hot & Transfer Presses			
e. _____Laminators			

	Current Holding	Current Deficiencies	Ideal Program
6. Motion Picture Equipment (8 & 16 mm)			
a. _____Motion Picture Sound			
b. _____Motion Picture Editing			
c. _____Motion Picture Processing			
7. Microform Equipment			
a. _____Microfiche			
b. _____Microfilm			
c. _____Micro-opaque			
8. Projectors			
a. _____Filmstrip			
b. _____Motion Picture			
c. _____Opaque			
d. _____Overhead			
e. _____Slide			
9. Projection Screens			
a. _____Portable			
b. _____Mounted			
10. Projection Stands			
a. _____Portable			
b. _____Permanent			
11. System, Learning Labs			
a. _____Programmed-Learning Devices			
b. _____Reading Devices			
c. _____			
d. _____			
e. _____ (Please list others.)			

V. Personnel

Indicate the value of the following personnel to the IRC by marking the appropriate number on the space before each item.

1. Very Important
2. Important
3. Not Very Important
4. Not Important

Indicate the number of personnel in the following columns assuming the number of faculty and students remain constant.

	Current Holding	Current Deficiencies	Ideal Program
A. Professional			
1. _____ Media Administrator			
2. _____ Instructional Media Specialist			
3. _____ Message Design Specialist			
4. _____ Resource Librarian			
5. _____ Curriculum Specialist			
6. _____			
7. _____ (Please list others.)			
B. Technical-Clerical			
1. _____ Graphic Artist			
2. _____ Photographer			
3. _____ Cataloger			
4. _____ Supervisors for teaching laboratories and resources			
5. _____ Clerk			
6. _____ Student Assistant			
7. _____ Programmer			
8. _____			
9. _____ (Please list others.)			

VI. Space and Environment
(Floor Space sq. ft.)

Indicate the value of the following areas that the IRC should provide by marking the appropriate number before each item.

1. Very Important
2. Important
3. Not Very Important
4. Not Important

A. _____ Exhibit Display Area

B. _____ Equipment Operation

C. _____ Production

D. _____ Reading

E. _____ Small Group Conference

F. _____ Preview

G. _____ Audio Listening

H. _____ Office

I. _____ Storage

J. _____ Darkroom

K. _____ Computer

L. _____ Internal Processing

M. _____ Book Shelving

N. _____ Experimental Classroom

O. _____

P. _____

Q. _____
(Please list others.)

Indicate the number of square feet in the following columns assuming the number of faculty and students remain constant.

Current Holding	Current Deficiencies	Ideal Program

VIII. Budget and Finance of the Instructional Resource Center

A. Circle one of the following which best describes your current budget.

Very Adequate, Adequate, Not Very Adequate, Not Adequate

B. Budget request must be submitted directly to whom:

1. _____ Chief administrative officer in charge of instruction for total university.

2. _____ Chief administrative officer in School of Education.

3. _____ Chief administrative officer in charge of Institutional Media Center.

4. _____
(Please list others.)

5. _____ If budget requests must be submitted to more than one administrative, please describe.

C. After budget has been approved, describe who controlls funds.

D. Is your budget based on need or proportional allocations? (Please explain.)

E. Capitalizations

1. What is the total dollar value of equipment you own or have unlimited access to? (Attach a copy of your inventory if possible.)

2. What equipment do you have limited access to: (What are the limits?)

3. What is the amount you receive each year from capital outlay for equipment purchase?

4. What is the amount you receive each year from capital outlay for supplies purchased?

5. What is the amount you receive each year from capital outlay for software purchase?

VIII. Administration Organization

A. Would you list the line and staff organization that operates your institutions?

B. Indicate a better organizational pattern that you feel would better serve the IRC needs.

APPENDIX B

QUESTIONNAIRE RESULTS

TABLE I

II. PHILOSOPHY--Scale of Importance

QUESTIONS	INSTITUTIONS			
	A	B	C	D
A	1	1	2	1
B	2	1	3	1
C	1	2	2	2
D	1	2	3	1
E	1	1	2	1
F	2	1	2	2
G	1	2	3	1
H	1	2	2	1
I	4	1	4	2
J	4	1	1	2
K	1	1	2	1

TABLE II

III. FUNCTIONS--Scale of Importance

QUESTIONS	INSTITUTIONS			
	A	B	C	D
A	1	1	2	1
B	1	1	3	1
C	1	2	1	1
D	1	3	1	3
E	1	1	1	1
F	1	1	1	2
G	1	1	1	1
H	1	1	2	1
I	1	1	2	1
J	3	1	3	2
K	2	1	3	2
L	2	1	3	2
M	2	2	3	1
N	1	1	2	1
O	2	1	3	2
P	1	2	4	3
Q	1	1	4	2

TABLE III A

IV A. MATERIAL RESOURCES--Scale of Importance

QUESTIONS	INSTITUTIONS			
	A	B	C	D
1	1	2	4	1
2	1	1	4	1
3	1	1	2	2
4	3	2	3	2
5	2	1	2	2
6	2	2	4	1
7	2	2	2	2
8	1	2	2	1
9	1	1	3	1
10	1	1	2	3
11	3	2	3	3
12	3	2	3	3
13	3	2	3	3
14	3	2	2	2
15	1	1	1	1
16	1	1	1	1
17	4	1	3	4
18	1	1	3	4
19	1	1	1	2
20	1	2	2	2
21	2	2	3	4
22	4	1	3	2
23	1	2	2	4
24	1			
25	1			
26	1			

TABLE III A (continued)

IV B. EQUIPMENT RESOURCES

QUESTIONS		INSTITUTIONS			
		A	B	C	D
1.	a	1	1	4	1
	b	3	3	4	2
	c	1	2	4	1
2.	a	4	4	4	4
	b	4	3	4	1
	c	1	1	4	2
3.	a	1	2	4	4
	b	3	3	4	1
	c	3	1	4	1
	d	1	4	4	1
	e	1	1	4	2
4.	a	1	3	4	1
	b	1	3	4	1
	c	1	3	4	4
	d	4	3	4	1
	e	1	3	4	1
	f	1	3	4	1
5.	a	1	1	4	1
	b	1	1	4	1
	c	1	2	4	1
	d	1	1	4	1
	e	3	2	4	4
6.	a	2	3	4	1
	b	2	2	4	1
	c	4	3	4	3
7.	a	1	2	4	4
	b	1	2	4	4
	c	4	2	4	4
8.	a	1	3	4	1
	b	1	3	4	1
	c	3	3	4	2
	d	1	3	4	1
	e	1	3	4	2
9.	a	4	1	4	2
	b	1	1	4	1

Table III A (continued)

QUESTIONS	INSTITUTIONS			
	A	B	C	D
10. a	1	1	4	1
b	4	1	4	4
11. a	1	1	4	2
b	1	1	4	2
c				1

TABLE III B

IV A. MATERIAL RESOURCES--Holding, Deficiencies and Ideal Program

	CURRENT HOLDING				CURRENT DEFICIENCIES				IDEAL PROGRAM			
	INSTITUTIONS				INSTITUTIONS				INSTITUTIONS			
QUESTION:	A	B	C	D	A	B	C	D	A	B	C	D
1.	132	0	0	30	66	100	0	45	198	500	0	120
2.	341	0	0	25	171	200	0	75	512	1,000	0	150
3.	2,516	500	50	100	629	1,000	5	10	3,145	2,000	500	310
4.	8	15	0	1	0	75	10	4	8	100	10	20
5.	124	1,000	0	0	93	2,000	100	15	217	5,000	100	30
6.	0	6	0	2	99	0	0	40	99	100	0	75
7.	290	250	50	0	72	500	10	20	362	500	200	50
8.	139	200	20	45	35	0	4	20	174	100	100	100
9.	81	9	15	0	61	18	2	5	142	20	30	15
10.	149	100	5	0	37	0	1	10	186	50	20	10
11.	0	100	0	0	50	0	20	10	50	25	30	10
12.	0	17	0	0	50	25	0	4	50	30	2	6
13.	0	0	2	0	75	15	0	5	75	25	0	10
14.	0	300	40	0	75	0	0	6	75	50	40	12
15.	6,155	10,000	3,000	1,000	1,539	0	0	100	7,694	1,500	2,000	700
16.	0	400	1,000	300	10	0	0	200	10	250	1,050	500
17.	1,301	0	0	0	130	0	0	0	1,431	0	0	0
18.	33,256	2,000	200	0	0	0	0	0	33,256	2,500	200	0
19.	2,802	2,000	300	200	280	1,000	30	50	3,082	1,000	363	250
20.	2,703	0	10	0	270	0	0	10	2,973	20	10	20
21.	6	0	0	0	0	3	0	0	6	10	0	0
22.	0	900	50	8					*	*	*	*
23.	3,555	0	200	0	889	30	0	0	4,444	30	200	0
24.	1,579			40	0			0	1,579			40
25.	192				0				192			
26.	1,799				0				1,799			

* One per graduate

TABLE III B (continued)

IV. EQUIPMENT RESOURCES

	CURRENT HOLDING				CURRENT DEFICIENCIES				IDEAL PROGRAM			
	INSTITUTIONS				INSTITUTIONS				INSTITUTIONS			
QUESTIONS:	A	B	C	D	A	B	C	D	A	B	C	D
1. a	11	3	1	6	4	2	0	2	15	5	1	8
b	0	1	0	0	0	0	0	1	0	1	0	2
c	37	6	1	12	9	3	0	15	46	9	1	15
2. a	0	0	0	0	0	0	0	0	0	0	0	0
b	0	1	0	2	0	9	0	3	0	10	0	5
c	3	4	0	1	2	6	0	2	5	10	0	2
3. a	19	1	0	0	4	1	0	0	23	5	0	0
b	0	0	0	4	0	1	0	2	0	1	0	12
c	8	2	0	6	0	1	0	6	8	5	0	12
d	1	0	0	1	1	1	0	1	2	3	0	2
e	1	1	0	1	0	1	0	1	1	2	0	2
4. a	6	0	0	1	0	1	0	5	6	5	0	6
b	2	0	0	1	0	1	0	1	2	5	0	2
c	2	0	0	0	0	1	0	0	2	5	0	0
d	0	0	0	2	0	1	0	6	0	5	0	10
e	5	0	0	1	0	1	0	2	5	5	0	3
f	1	0	0	1	0	1	0	1	1	5	0	2
5. a	9	3	0	2	0	0	0	0	9	5	0	2
b	3	2	0	2	0	0	0	2	3	3	0	4
c	100	2	0	1	25	1	0	12	127	5	0	15
d	1	3	0	3	0	1	0	1	1	4	0	4
e	9	0	0	0	0	1	0	0	1	2	0	0
6. a	1	0	0	0	1	3	0	6	2	5	0	10
b	2	0	0	1	2	3	0	5	4	5	0	10
c	0	0	0	0	0	0	0	1	0	0	0	1
7. a	3	1	1	0	1	0	0	0	4	2	1	0
b	2	1	0	0	1	0	0	0	3	2	0	0
c	0	0	0	0	0	1	0	0	0	2	0	0

TABLE III B (continued)

QUESTIONS:		CURRENT HOLDING INSTITUTIONS A	B	C	D	CURRENT DEFICIENCIES INSTITUTIONS A	B	C	D	IDEAL PROGRAM INSTITUTIONS A	B	C	D
8.	a	13	3	1	8	0	1	0	2	13	5	1	10
	b	45	2	0	8	12	6	0	6	57	8	0	20
	c	5	1	0	1	0	2	0	2	5	3	0	4
	d	16	4	0	10	3	2	0	2	19	6	0	12
	e	30	4	0	1	6	4	0	3	36	8	0	4
9.	a	5	1	0	0	0	10	0	2	5	5	0	2
	b	30	40	0	9	0	10	0	1	30	50	0	10
10.	a	25	3	0	12	3	2	0	2	28	10	0	16
	b	0	1	0	0	0	0	0	0	0	1	0	0
11.	a	0	2	0	0	0	2	0	2	0	5	0	6
	b	0	1	0	0	0	0	0	2	0	1	0	4
	c				1				1				2

TABLE IV A

V. PERSONNEL--Scale of Importance

QUESTIONS		INSTITUTIONS			
		A	B	C	D
A.	1	1	1	4	1
	2	2	1	4	4
	3	3	1	4	4
	4	1	1	2	4
	5	1	1	2	4
	6	1			
B.	1	1	2	4	4
	2	2	2	4	4
	3	1	1	4	4
	4	1	1	4	2
	5	1	1	4	1
	6	1	1	4	1
	7	4	4	4	4
	8	1	1		1

TABLE IV B

V. PERSONNEL--Scale of Importance

	CURRENT HOLDING				CURRENT DEFICIENCIES				IDEAL PROGRAM			
	INSTITUTIONS				INSTITUTIONS				INSTITUTIONS			
QUESTIONS:	A	B	C	D	A	B	C	D	A	B	C	D
A. 1	1½	3/4	0	1/2	0	1/4	0	1/2	1½	1	0	1
2	5½	1/4	0	0	0	3/4	0	0	5½	1	0	0
3	0	1/2	0	0	0	1/2	0	0	0	1	0	0
4	4	1/4	5/8	0	4	3/4	0	0	8	1	5/8	0
5	0	1/4	5/8	0	1	3/4	0	0	1	1	5/8	0
6	1				0				1			
B. 1	0	1/4	0	0	1	3/4	0	0	1	1	0	0
2	0	1/4	0	0	0	3/4	0	0	0	1	0	0
3	0	1/2	0	0	0	1/2	0	0	0	1	0	0
4	1	1	0	0	2	1	0	1	3	2	0	1
5	3	1½	0	1/2	2	1/2	0	1/2	5	2	0	1
6	10	3	0	3	0	2	0	2	10	5	0	5
7	0	0	0	0	0	0	0	0	0	0	0	0
8	2	3		1/2	4	2		1/2	6	5		1

TABLE V A

VI. SPACE AND ENVIRONMENT--Scale of Importance

QUESTIONS	INSTITUTIONS			
	A	B	C	D
A	1	1	1	2
B	1	1	2	1
C	1	1	3	2
D	1	1	1	1
E	1	2	1	2
F	1	2	2	1
G	1	2	2	1
H	1	2	2	1
I	1	1	3	1
J	1	3	4	1
K	4	4	4	4
L	1	1	3	2
M	1	1	2	1
N	2	2	4	2
O				1
P	1			
Q	1			
R	1			

TABLE V B

VI. SPACE AND ENVIRONMENT--Holding, Deficiencies and Ideal Program

	CURRENT HOLDING				CURRENT DEFICIENCIES				IDEAL PROGRAM			
	INSTITUTIONS				INSTITUTIONS				INSTITUTIONS			
QUESTION:	A	B	C	D	A	B	C	D	A	B	C	D
A	0	1,000	45	192	690	500	0	24	690	1,500	45	216
B	902	1,200	4	500	0	300	0	500	902	1,500	4	1,000
C	420	144	0	120	420	156	0	120	840	300	0	240
D	9,456	1,000	270	96	2,544	1,000	0	25	12,000	2,000	270	121
E	288	900	0	0	576	900	0	120	864	1,800	0	120
F	199	900	9	5	411	900	0	100	630	1,800	9	150
G		160	0	80		40	0	80		200	0	160
H	1,145	240	36	120	1,955	160	0	30	3,100	400	36	150
I	800	140	80	30	2,535	160	0	80	3,335	300	80	110
J	413	120	0	64	121	480	0	126	594	600	0	200
K	0	0	0	0	0	0	0	0	0	0	0	0
L	1,040	200	72	64	1,040	300	0	20	2,080	500	72	84
M		3,500	405	75		1,500	0	30		5,000	405	105
N	0	0	0	0	0	2,200	0	600	0	2,200	0	600
O				400				200				600
P	1,333				1,333				2,666			
Q	144				3,856				4,000			
R	0				2,000				2,000			

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