1977

A Plan for the Design of an Ideal Instructional Media Center in the Teachers Colleges of the Republic of China

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A PLAN FOR THE DESIGN OF AN IDEAL INSTRUCTIONAL MEDIA CENTER IN THE TEACHERS COLLEGES OF THE REPUBLIC OF CHINA

(TITLE)

BY

Yung-Ger Shang

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Specialist in Education

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1977
YEAR

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A PLAN FOR THE DESIGN OF AN IDEAL INSTRUCTIONAL MEDIA CENTER IN THE TEACHERS COLLEGES OF THE REPUBLIC OF CHINA

BY

Yung-Ger Shang

ABSTRACT OF A FIELD STUDY

Submitted in partial fulfillment of the requirements
for the degree of Specialist in Education at the Graduate School
of Eastern Illinois University

Charleston, Illinois
1977

Since the end of World War II, Audiovisual education had developed rapidly. Today, instructional media and technology are requirements for teacher education.

The purpose of this study is to design an ideal instructional media center that meets the trend of instructional media development. In order to determine the type of instructional media center, a few factors need to be realized. One factor includes the nature and function of normal education of The Republic of China. The situation of the future developments of normal education. The situation of the economic future developments that influence the budget of the instructional media program.

This thesis is written in three parts. Part one is the introduction and items about the research: research motive, background of normal education of the Republic of China, research method and research objectives. Here, it is mentioned that the philosophy of normal education between the United States and The Republic of China is somewhat different. The function and organization of the Instructional Media Center of the Republic of China as compared to the IMC's of the United States Colleges are a few of the differences.

Part two states the ideal instructional media center. First by determining the developing direction and objective of the IMC. The servicing objects are from faculty to students, from on campus to off campus. The work items are from equipment servicing and media production to instructional media research and teaching guidance. According to the objective ot the IMC that is determined, the work items of IMC consists of a list of ten items. To implement the work there is need

of an organization, in order to easily develop the work of the IMC, it is suggested that there be two committees. The committees will include the administering people, like the director of each department.

Next discussed is the space and facilities of the IMC. The whole structure of the IMC building may not be very suitable, but each room of the IMC would have some reference value. Organization of the space must be according to the work of the IMC, the need of future development, and the organization of the IMC. Although the plan of the IMC is an ideal, it must be implemented to determine the equipment need, to think about what kind of equipment can be bought in the local stores and to think about what kind of media can be obtained to match the equipment. The final section of part two states research and evaluation functions. In order to implement and improve the whole function of the IMC, it can help to understand the real situation and to know what level the work is at.

Part three is conclusions and suggestions. From this field study, it has been felt that the IMC is the heart of a modern school or college. About the role of IMC in the future education development, it is believed that it must be more important than today. The implementation of new thought of education depends on the implementation of work of the IMC. The appearance of the IMC makes a revolution to the traditional education. The way of education cannot be limited to classroom again; it cannot be limited to textbook again; and it cannot be limited to teachers teaching again.

To improve the situation of the instructional media program of the Republic of China and to establish IMCs early, this paper gives sugges-

tions which includ personnel training, audiovisual education course improvement, instructional media production and providing an IMC establishment.

The real ideal IMC cannot be designed by one person, but it must be started by one person.

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PART ONE

Introduction

Living in the 20th century, human beings have met new situations which as Edgar Dale said, "In the first place, scientists and other specialists have produced ideas faster than they are being communicated, absorbed, and applied. Hence, there is an increasing gap between what is known and what is done. Not only are there more ideas than ever before, but they are more complex."[1] Even though most people today are more knowledgeable than in the past, under the above situations, human beings have never needed knowledge more than they do today. There is an awareness that "Knowledge is Power." Today in an open society it may be agreed that "Education is a human right." The more education obtained the more chances of development will occur. Here, what is emphasized is not only the importance of education, but also the quality of instruction. Consequently, teachers of today have faced a challenge, that is -- how to improve their instruction and make it more effective.

From another point of view, teachers are lucky because the scientists and specialists of industry do not merely bring the explosion of knowledge which gives the above mentioned challenge, they also enable responses to it. They have produced different types of teaching equipment which help to make teaching more effective. However, the equipment cannot do the work alone, what is needed is an educational organization to produce software and to help teachers to use them. As a result, the Instructional Media Center (IMC) is

established to carry out these tasks.

From the view of education itself, educationalists have developed theories such as: "Nongraded programs, variable class size, independent study, flexible scheduling, and the growth of special remedial and developmental programs which are aimed at individualizing instruction. Each of these programs require the student to use more instructional materials than have been used traditionally in school."[2] Similar theories like this explain why today all types of school, from elementary to colleges, require an IMC.

As a result, the IMC is to serve both teachers for instructions and students for individual learning or work.

Research Motive

Today in Taiwan, there is only one Audiovisual Education Center located in the National Taiwan Normal University. None of the teachers Colleges or Normal Junior Colleges have a formal AV Center. From the trend of the development of Audiovisual Education, it is known that today all schools must have an Instructional Media Center sooner or later. Hence, in the near future, the Teachers Colleges and Normal Junior Colleges in Taiwan will have to establish an IMC also.

What type of organization and function of the IMC is needed? Finding the answer is the research motive. It is hoped that this study can meet the situation of Taiwan. Audiovisual education arose in the United States years ago. What kinds of services are performed by the IMCs? What types of organizational patterns have the IMCs taken? What kinds of problems have they encountered in establishing the IMC. Answers to these questions should have some value for reference in Taiwan.

Background

A. The nature of Teachers Colleges

The philosophy of education in China holds that normal education is provided for the defense of the country. So all the teachers colleges are public, just like the military education school, which cannot be private. This means that the budget of these colleges comes from the government and the students don't pay any expenses. All teacher colleges have the responsibility to guide the lower ranks of school

teachers. National Taiwan Normal University and Kaohsiung Teachers College guide the high schools, and others from the nine Junior Normal Colleges guide the elementary schools.

B. Audiovisual education in the Republic of China

1. Before 1949, both the government and the educators considered the audiovisual education only as a means to develop social education. At that time, a teacher just using textbooks to teach was considered enough. There were no other teaching materials, and audiovisual education was called electric education which only included broadcast and motion picture. From 1940 until today, the organization administering the audiovisual education in the country is the Department of Social Education under the Ministry of Education.

2. In 1953, UNESCO sent an audiovisual specialist to the Republic of China to help them develop AV education. Since that time schools began to emphasize the importance of audiovisual materials in teaching.

3. The Republic of China has been developing AV education for more than 20 years and now find the following problems occuring:

   a. Lack of personnel

      In most schools, even in the normal colleges, there is only one or two people working for AV education. Under such a situation, those people need to have more knowledge about education, instruction, teaching content and some techniques like darkroom work, tape recording, equipment operation, equipment repair. But for the college, this kind of person is not easy to find because people with the qualification and knowledge required can earn much more money off campus.

   b. Lack of instructional media (software)

      Unlike equipment which can be operated in any place, the instructional media in each country should be in their own language and design. Unfortunately, there are very few people who produce slides, transparencies, audio materials and motion picture films in Taiwan. Such a small quantity of production, of course, cannot meet the needs of the schools. It could be said that the lack of instructional media is the most serious problem.

c. Financial Problem

There is no firm budget allocated for AV education. Therefore, it is hard to design a long-range development plan. Actually, what is needed is not only a fixed budget, but also more money. A strong organization is needed.

C. Following the improvement of economic growth in the Republic of China, there is a better chance of obtaining more support to push and improve the work of AV education. Today, both teachers and parents all want to enhance the effect of the schools' instruction.

D. The IMC should be independent. It would be better to be independent than to be part of the library because to produce instructional media is more important than to supply the learning materials. This situation is different than it is in the United States.

Research Method

A. Document Analysis

To read the books and magazines about the instructional media; to find out the tendency of AV education, and to determine the objectives for development the IMC.

B. Visit and interview

Visits to the elementary schools, high schools and colleges; observing their IMC equipment and facilities; taking slides as reference; discussions with the staff to share their experience.

Definition of Terms

A. Normal education

In the Republic of China, normal education is different from other vocational education. A teacher's instruction is not like a businessman's job to sell an item because a teacher's responsibility is not only to help students to become knowledgeable, but also to show students how to be a human being. The teacher is a model for students to identify with. A good teacher can influence students forever. Based on these goals, more than professional teacher training is asked of the students of the teacher colleges which is why the normal education is different from other vocational education.

B. The Normal University and teacher colleges

The students who graduate from the Normal University or teacher colleges will be teaching in junior high schools. After they have studied in the school for four years, they are also required to serve one year of practical training in the junior high schools. To receive the degree, the students have to complete this 5-year program without exception.

C. The Junior Normal College

The students who graduate from the Junior Normal Colleges will be teaching in elementary schools. The students who are senior high school graduates have to study in a Junior Normal college for four years plus one year teacher training in elementary schools. The students who are junior high school graduates have to study in the college for 5 years, instead

of 4 years, and then receive one more year of training in elementary schools. There are a total of nine Junior Normal Colleges in Taiwan and only graduates from one of these can teach in the elementary schools.

D. In-service training

Those teachers in junior high schools who have not graduated from Normal University or one of the teacher's colleges are required to have in-service training in a summer session by taking educational courses totaling 20 credits and then get a teaching certificate. There are other types of in-service training other than those listed above to insure that the quality of teachers is always standard. Workshops and conferences are the methods most frequently adopted.

Objectives of Research

A. To design a long-range developing plan for the IMC.

Since the Second World War during which the audiovisual education (AVE) arose until today, ther have been many changes and obvious improvement. At the beginning, the AVE was called a "teaching aid". It came from the meaning that the teachers used aids in teaching in addition to the textbooks. But today AVE can be called Instructional Media, educational media, or learning resource which is not merely used in classrooms but also in places known as "learning resource centers" or "self-study center," where students can use it for learning based on their own speed. What should be considered is both the situation of today and the

educational developments of tomorrow. Therefore, it would be the major objective to deisgn a long-range plan for the development of the IMC.

B. Based on the nature of the teacher colleges, the work, organization, and staff of the IMC can be specified.

C. Designing the space of IMC

What type of building? How much space is required in each room to meet their different functions? What physical facilities are required?

D. Identifying the equipment

According to the actual situations and future development, the purchasing[1] quantity and priority for different categories of equipment can be designed. But, this should be flexible enough to match the changing situation. For instance, the quantity of equipment is always decided by the quantity of media (software).

Generally speaking, ther are three categories of equipment. The first group is used for the need of media, such as a film projector, overhead projector, and opaque projector. The second group is used for producing materials. These include cameras, copy machines, and mounting machines. The third group is used for the maintenance and repairing of equipment and tools. Items needed in the third group are dependent upon the skill of the staff.

PART TWO

An Ideal Instructional Media Center

A. Developing the direction and objectives of the IMC

1. Instructional Media Center ---> Learning Resources Center

At the beginning, the immediate purpose of the IMC is to help teacher instruct using instructional media. Once the IMC has grown strong enough, it can extend its service to fulfill the function of the learning resource center for students' self-study programs. From helping the teachers to assisting students in learning; the center can also serve the teachers of other schools. Along this direction, the final objective of the IMC is to become open to teachers either belonging to the campus or to other campuses.

A comparison with the IMC of Eastern Illinois University, can perhaps enhance the explanation. The initial step is to help in the teaching of classes of audiovisual education. This function is just like the IMC at EIU. It also serves all the teachers in the campus. This work is similar to the work of the AV center at EIU. The final goal, which is different from that at EIU, is to serve teachers outside the campus since the college assumes the function of guidance. Here, one idea that should be noted is that the learning resources center would like to supply non-print material only.

2. Instructional Media Production Center -----> Instructional Media Supply Center

In Taiwan, instructional media is scarce. There are two

reasons for this. First, most teachers have no idea about the use of audiovisual media. Second, producing instructional media is not a profitable business. Under this unfavorable condition, the IMC must produce the instructional media alone. It requires a knowledge of education and teaching content and also the need of special skills of production. When it cannot be produced by one person, teamwork becomes necessary. It may begin with the production of graphic materials, transparencies, slides, filmstrips, and tape recordings. Then, when the staff has increased, production can be furthered by making films, VIDEO tapes, and supplying the duplicates to other schools. Hence, from the fiew of supplying instructional media, the IMC will become a production center as well as a supply center. In case this fails to work, the IMC can hardly succeed.

3. Instructional Research Center → Instructional Guidance Center

As one of the responsibilities of the teacher colleges is to help the junior high school's teacher improve their teaching instruction, it is required that the best instruction method be discovered. Since the end of World War II, new educational concepts have been continuously developed. Today, much emphasis is put on individualized learning, programmed instruction, the instructional system a-proach, input-output, and behavior objectives. All of these theories have been learned from the United States. This means Taiwan is not far behind in theory because each year many students receive a doctorate degree in the States and return to serve the country. But they only

bring back the theory. For example, if the programmed instructional material is not possessed, how is it possible to utilize programmed instruction? Instructional theory cannot work unless it can be matched with the teaching content, the curriculum, and the instructional media. In other words, it is very important to concentrate the research in media in order to keep up with the development in instructional theory. As long as the society is changing and the education is improving, the instructional method will need constant improvement.

In conclusion, the developing objectives of the IMC's long-range plan can be briefly stated as follows:

From an Instructional Media Center to a Learning Resource Center

From an Instructional Media Production Center to an Instructional Media Supply Center

From an Instructional Research Center to an Instructional Guidance Center

B. The work of the IMC

In order to accomplish the objectives of the IMC, the following work must be done:

1. Audiovisual educational instruction course

   The teaching of this course will be the most important job of the IMC. The course content should include: theory introduction, equipment operation, and audiovisual materials production.

2. To help in the teaching of different subjects with instructional media.

This should include not only equipment and media service, but also instructional design, if necessary. It will not have maximum value if the equipment is utilized only in the AVE classes.

3. Workshop & Conference

The in-service training should be opened to all teachers either on or off campus because there are numerous teachers who have never had the chance to understand the audiovisual media and equipment. Once the effect of the instructional media and equipment is learned, it would be easy to motivate the teachers to use these tools. Whether the media can reach its highest value depends on its broadest use in all classes.

4. Production of instructional media

The IMC produces three kinds of media -- one is for the use of the AVE classes; another is for the use of other classes; and the third is for the use of teachers not on campus. Except for the center itself, both the students who are taking the AVE courses and the teachers on campus can be allowed to produce the media alone. This will have the same function as the IMC at EIU which is open to all teachers and students.

5. Equipment Service

This work includes the purchasing, maintenance, and repairing of equipment. Service for "teaching" means the equipment used in the classrooms. Service for "learning" means the equipment supplied in the learning resource center.

6. Instructional Media Circulation

   This includes the supply of both the material needed in the learning resource center and the teaching media needed by either the teachers on or off campus.

7. Instructional method research

   Material collected includes: textbooks for elementary and high schools, other instructional method research reports, and material either from the nation or from other countries. This material will be used by the IMD itself, the students on campus, and the teachers on campus for their research of instructional method.

8. Instructional media exhibitions

   a. frequent display - includes students' work and products, newest media and the latest trend of instructional media.

   b. campus-display - includes exhibition of the equipment and media owned by the school and also inviting business companies to display their newest products.

   c. district display - this is opened to all the teachers invited in the district.

9. Publishing instructional media magazines and series books

   The purpose of this work is to share the researching products of scholars in this field.

10. Answering the teaching questions

    This service can be made through phone calls or written communications. The collection of different problems concerning instruction will become a valueable resource in helping the IMC understand the actual problems faced by most teachers.

11. Accumulation of instructional media

The function of the IMC also lies on the adequate supply of instructional media. Except for the products made by the IMC staff itself, resources of instructional media can come from the following three ways:

a. purchasing

The IMC will have to buy products which are basically required and which it is unable to produce such as 16mm films, discs, music tapes, maps, and globes. Even some of the media available on the market which can be produced by the IMC but is suitable for teaching use should not be neglected when purchasing.

b. free product collection

Teachers' own products for instruction, students' products from learning; commercial catalogues and posts; out-of-date magazines, etc.

c. products exchange with the IMCs of other schools.

12. Cataloging and evaluation of instructional media

The work of cataloging should be as detailed as possible to enable it to meet the increase of instructional media either in quantity or in variety. In order to ensure that instructional media can reachieve the expected function, all instructional media should be evaluated. In the book "Media Personnel in Education" by Margaret E. Chisholm and Donald P. Ely, the authors have listed an evaluation form in detail. This form is so well designed that it can be used as a very good reference. (See Appendix).

C. The organization shown on the following page might be suitable for a short-range plan.

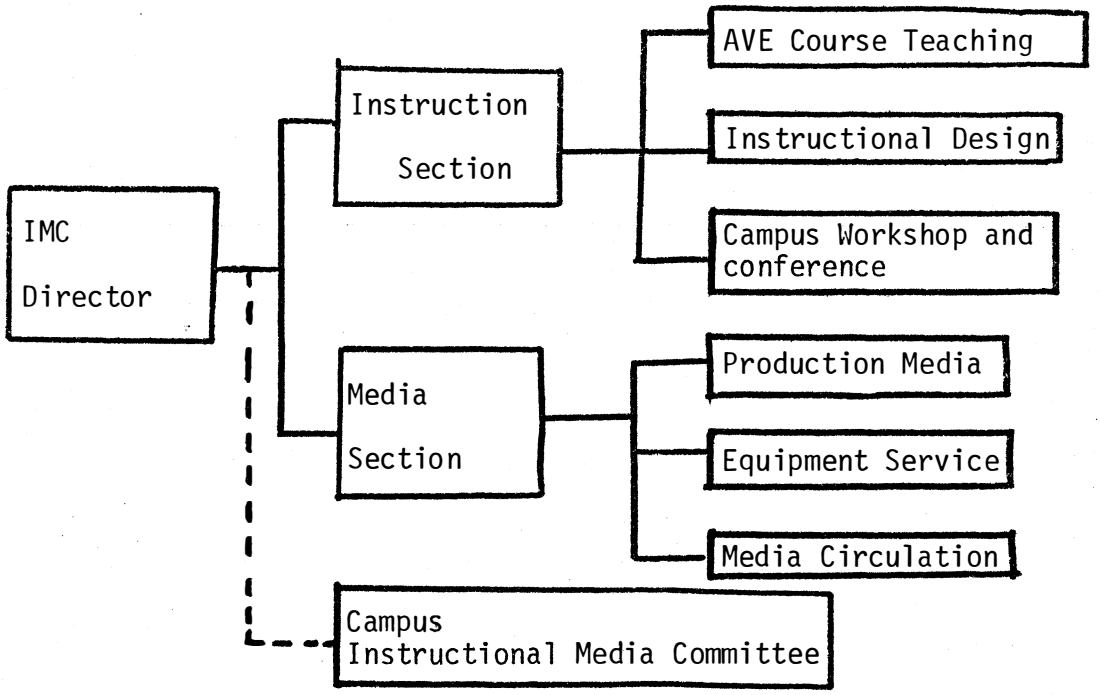


Figure 1. IMC Organization for today or short-term plan

Manpower may be the very basic and most important element to achieve the function desired by the IMC. Where can this personnel be found? Perhaps one of the best sources is from the "ranks of good classroom teachers."[3]

More suggestions can also be found in the book "Administering Educational Media" which would help solve the personnel problems.[4]

> "Encourage capable people from other professional areas to enter the educational media field: top-notch graphic artists or television personnel, for example, who may never have aspired to do educational media work, but who could be encouraged to do it because it promises satisfaction of new and stimulating experiences in working on interesting problems. Find ways to assist library and audiovisual personnel presently employed in the field to upgrade and broaden their preparation for continued expanded responsibilities. Develop functional new curricula for educating or training individuals for many different types of specialist professional assignments within the media field, not all of which are necessarily "teacher training" and none of which is intended, by itself, to produce across-the

field generalists who will manage such programs."

From experience, there is another way to solve this problem. That is "in-service training". Learning by doing is one of the best ways of training. One person may be employed who has the college training and also holds an interest and aggressive attitude toward the use of instructional media.

D. Space of the IMC

To decide the space of the IMC, the following four questions implied by Erickson in his book "Administering Instructional Media Programs"[5] must be considered.

1. What kinds of learning spaces should we have and how should we equip them with media facilities if we desire to arrange condition so that pupils can learn effectively by themselvs a given portion of essentail content?
2. What kinds of learning spaces and med-use facilities must be provided when pupils are organized to learn not only from their own teacher, but from others with teaching roles to play?
3. What kinds of learning spaces and media-use facilities are needed for those educational objectives that we predict demand direct and personal guidance of pupil activity, as well as pupil-to-pupil communication?
4. What kinds of special services to teachers and pupils are urgently needed when media is to be used effectively in direct and indirect instructional roles?"

These questions are a reminder to never forget the IMC's functions when designing the space of the IMC. One more problem that needs

to be considered is that the tropical weather in Taiwan never has a winter season. Therefore, the building housing the IMC will not need a heater and closed corridor.

The layout of rooms and the design of the two floors of the IMC building is sketched in figures 2 and 3.

The functions, facilities and equipment of each room are stated below:

First Floor

A. AV Classroom

a. function - AV education classes; in-service training workshop; middle-size meetings.

b. facilities - 60 chairs, 20 meeting tables, sink, bench and storage, chalkboard, demonstration table, light control, air conditioner.

c. equipment (Immobile) - wall screen, overhead projector, film projector, slide projector, opaque projector, cassette recorder, amplifier, speakers.

B. Store Room

a. function:- materials storage (not used), tape, color pens, board, etc.

b. facilities - storage, stock shelves.

C. Preview room

a. function - video materials lab.

b. facilities - chairs, light-controller, air conditioner.

c. equipment - 16mm projector, 8mm projector, slide projector, filmstrip projector, overhead projector, opaque projector, screen.

D. Graphic Room (Staff only)

a. function - producing graphic materials

b. facilities - workbench, work table, small meeting table, table, stock shelves, drawtable.

c. equipment - paper cutters, dry mount press, tacking iron, thermo transparency maker, lettering brush, rule, slide duplication equipment, mechanical lettering devices.

E. Office for director

F. Office for secretary

G. Restroom - staff and visitors

facilities - sofa, air-conditioner, etc.

H. Meeting room

a. function - MC meeting, IM Committee meeting, Media production design meeting.

b. facilities - meeting tables, chairs, air-conditioners.

I. Office for staff

J.and K. TV Studio and Control room

a. function - videotaping (from films, slides, actor), television program; pre-service training.

b. facilities - demonstration tables; chalkboard; air-conditioner, acoustic condition; tape shelves.

c. equipment -

1. two broadcast-quality vidicon camera chains with electronic viewfinders, lenses, tripods, console, and video monitors.
2. microphones, audio tape recorder and mixer-amplifier at the console.
3. optical multi-plexer chain using film and slide projectors.
4. suspended lights and a switchboard control.
5. headsets and intercom system
6. two videotape recorders with electronic editing feature on one of the units
7. appropriate modulator for RF transmission and supplimentary transmitters and amplifiers for multi-channel operation.
8. an antenna receiving system for receiving and taping programs from external sources.

9. between studio and control rooms, install a glass panel with connector plugs in the partition separating it from the main studio.

L and M. Recording Studio and Control Room.

a. function - recording sound slide tapes, re-recording for preparing multiple copies, recording from disc.

b. facilities - "A control room with a glass panel with connector plugs in the partition separating it from the main studio, acoustic treatment, quiet air exhaust and air conditioning systems, suitable floor coverings, control table, chairs."[6]

c. equipment - microphones, disc player, recorder (reel-to-reel, mono and stereo, cassette mono and stereo,) amplifier, speakers, tape splicer, radio receiver (AM-FM), copy machine (reel-to-reel and cassette.).

N. Womens Room

O. Men's Room

P. Dark room - staff use only

a. function - producing pictures, photocopy, slides, filmstrips

b. facilities -

1. light-tight characteristics of the room, including proper light locks.
2. electrical outlets near workbenches and near sinks.
3. exhaust fans with proper light traps.
4. regular lights and safe lighting
5. running hot and cold water, and sometime sinks ought to have double-mixing valves and double drains.[7]

equipment - "trays, tanks, thermometers, timer clocks, enlargers, printers, light table, dryer, mounting press, sinks, storage cabinets, single lens reflex 35mm cameras (plus adapter rings and close-up lens, telephoto lens, light meter, blue filter, copy stand with lights.) 4x5 camera filmstrip camera, super 8 camera, 16mm motion picture camera and three lens turrent plus

tripod, slide duplicating unit and accessories (such as Heiland Repronar). reflex photo-copier, paper cutters, one set of lights, refrigerator.

Q. Media Library - for teaching only

a. function - to supply teachers with teaching media (software)

b. facilities - air-conditioner, workbenc, work table, stock shelves.

c. equipment - film splicer

R. Storage Equipment Room (also a repair room)

a. function - equipment service

b. facilities-stock shelves, work table, workbench, mobile stands

c. equipment - repair equipment (equipment records storage)

Second Floor

A. Lecture Hall

a. function - in-service training conferences, big-group training, meetings.

b. facilities - 144 seats, demonstration table, chalkboard, light control, air-conditioner.

c. equipment - wall screen, overhead projector, speakers.

B. Laboratory - students

a. function - equipment operation practices, learning to produce materials.

b. facilities - work table, workbench, carrel.

c. equipment - 16mm motion-picture projector, slide projector, filmstrip projector, tape recorder 8 mm motion picture projector, overhead projector, duplicating machine, opaque projector, paper cutter, dry-mount press, Diazo transparency equipment, taking iron.

C. Exhibition Hall

a. function - display teaching media, instructional media theory.

b. facilities - hole boards, bulletin board, sofa, lights, light box.

D. Staff Office

E. Dark Room - for teachers and students

F. Laboratory - teachers

a. function - material production by teachers themselves.

b. facilities - worktable, workbench, air-conditioner

c. equipment - overhead projector, opaque projector, duplicating machines, paper cutter, dry-mount press, tacking iron, Diazo transparency equipment, mechanical lettering devices.

G. Reference Room

a. function - research of instructional media and instructional methods; collecting relative information and material including textbooks of elementary and high schools.

b. facilities - book shelves, tables, chairs, air-conditioner.

H. Meeting Room

a. function - seminars

b. facilities - air-conditioner, table, chairs.

I. Womens Room

J. Mens Room

K. Media Library

a. function - to store disc, tape, slides, filmstrips, videotape, films used for self-study.

b. facilities - catalog table, work table, stock shelves, air-conditioner.

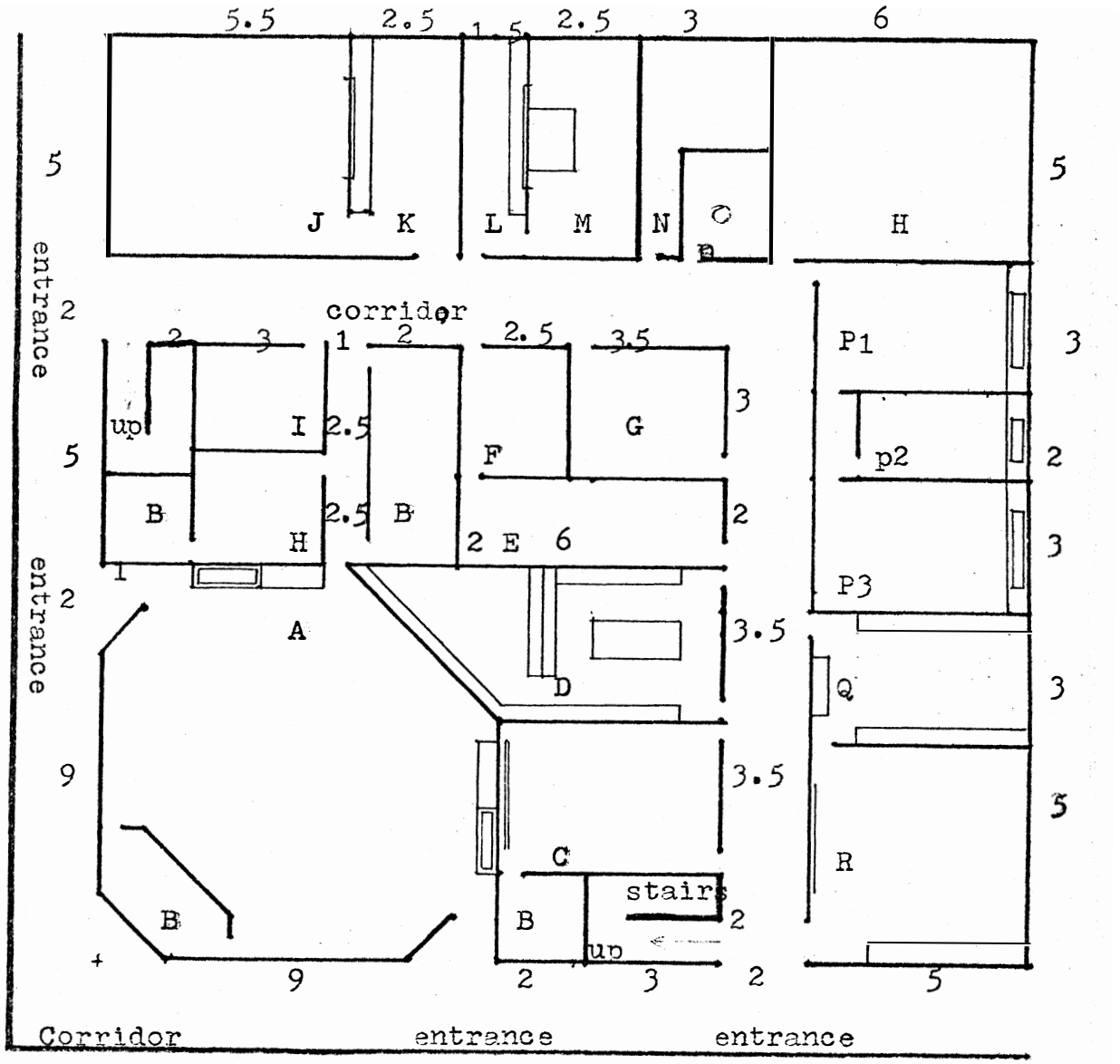
c. equipment - film splicer.

L. Self-Study room

a. function - learning media center for self study

b. facilities - 30 recording and listening stations, 20 viewing and listening stations, tables, chairs, air-conditioner.

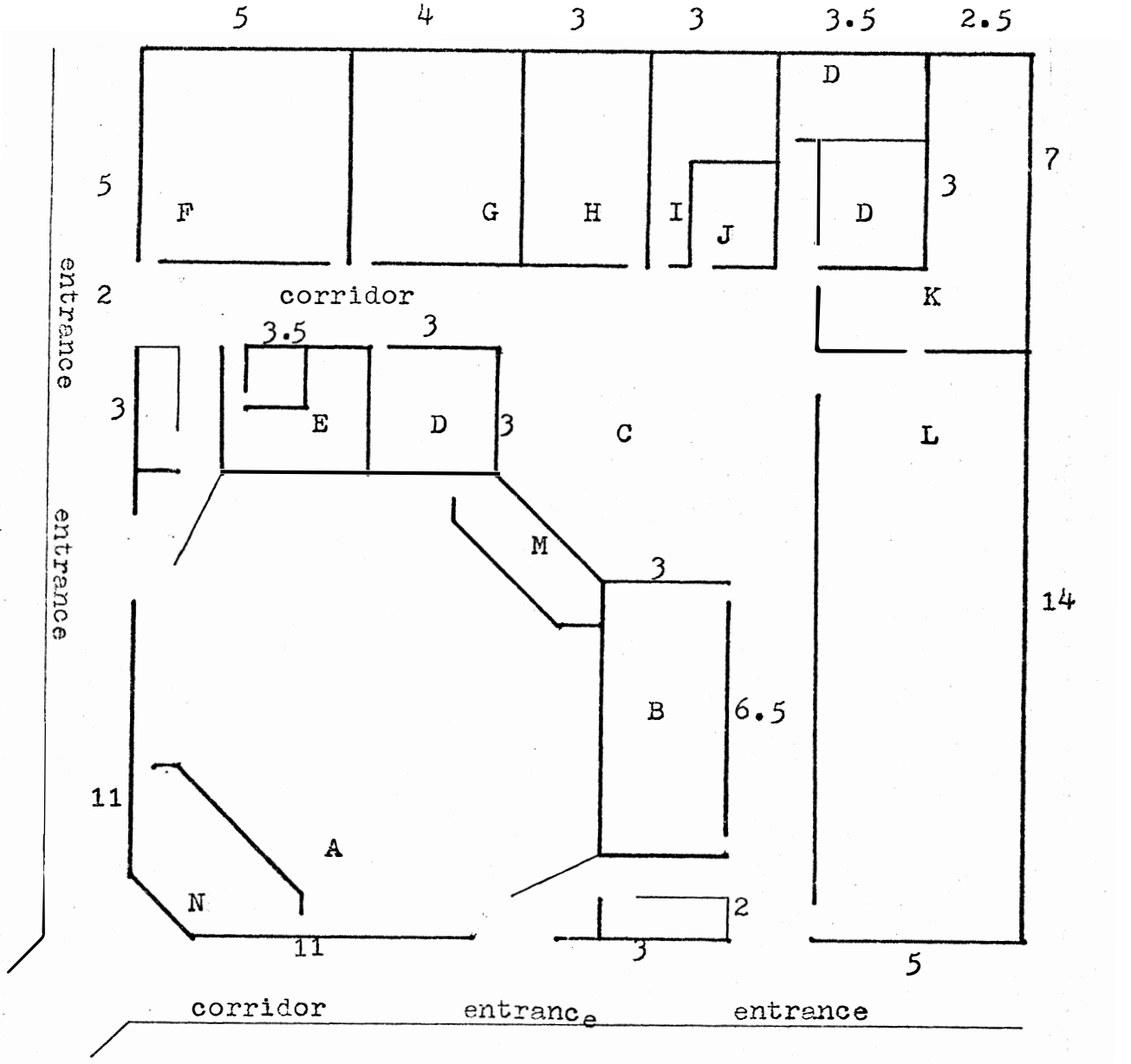
c. equipment - disc player, tape recorder (cassette and reel-to-reel), slide viewer, slide projector, film projector, VTR (VCR) receiver.



A. AV Classroom
B. Store Room
C. Preview Room
D. Graphic Room - staff
E. Director's Office
F. Secretary's Office
G. Restroom
H. Meeting Room
I. Staff Office
J. TV Studio
K. TV Studio Control Room
L. Recording Studio Control Room
M. Recotding Studio
N. Women's Room
O. Men's Room
P. Dark Room - staff
Q. Media Library - teaching
R. Storage Equipment Room (repair room)

Scale —— = 2 m
1/16"= 0.5 m

Figure 2: IMC Building - 1st floor



A. Lecture Hall
B. Laboratory - students
C. Exhibition Hall
D. Staff Office
E. Dark Room - students &
F teachers
F. Laboratory - teachers
G. Reference (Research) Room
H. Meeting Room
I. Women Room
J. Men Room
K. Media Library - self-study
L. Self-study Room
M. Projection Room
N. Lecturer Restroom

Scale —— = 2 m
1/16"= 0.5 m

Figure 3: IMC Building - 2nd floor

D. Equipment

There are two principles to consider before purchasing equipment. First, to determine the purchasing priority according to the useable rank of equipment. Second, to decide the amount of equipment according to the quantity of media. Based on these two principles, a buying list can be comprised in 3 phases as showin in the following table.

Table 2. Equipment of the IMC

CATEGORY	PHASES		
EQUIPMENT	PHASE 1 (Basic)	Phase II	Phase III
16 mm projector	4 for open service 5 in different styles for students operation practice	8 for open service 6 for media center	1 per teaching station 7 for media center
8mm projector	2 for open service 2 for media center	3 for open service 4 for media center	1 per 8 teaching stations 10 for media center
2x2 slide Projector	5 for open service 6 for media center (in different styles)	10 for open service 7 for media center	1 per 3 teaching stations 10 for media center
2x2 slide viewer	3 for media center	5 for media center	10 for media center
Filmstrip projector	1 for open service 2 for media center	3 for open service 4 for media center	1 per 5 teaching stations 5 for media center

CATEGORY	PHASES		
EQUIPMENT	PHASE I (Basic)	PHASE II	PHASE III
Filmstrip viewer	3 for media center	5 for open service 4 for media center	1 per 10 teaching stations 5 for media center
Sound filmstrip Projector	2 for open service 3 for media center	4 for open service 3 for media center	1 per 10 teaching stations 5 for media center
Opaque Projector	2 for open service 2 for media center	3 for open service 3 for media center	4 for open service 4 for media center
TV receiver (23" screen)	2 for media center	3 for media center	4 for media center
Record player	2 for open service 2 for media center	3 for open service 3 for media center	1 per 10 teaching stations 3 for media center
Audio Tape Recorder Cassette mono	6 for open service 4 for media center	7 for open service 5 for media center	1 per 5 teaching stations 10 for media center
Cassette Stereo	2 for open service 3 media center	3 for open service 4 for media center	1 per 10 teaching stations 5 for media center
Reel-to-Reel mono	2 for open service 3 for media center	3 for open service 3 media center	1 per 10 teaching stations 4 for media center
Reel-to-Reel stereo	2 for open service 3 media center	3 for open 4 media center	1 per 12 teaching stations 5 - media center

CATEGORY	PHASES		
EQUIPMENT	PHASE I	PHASE II	PHASE III
Radio Receiver (AM-FM)	2 for media center	2 for media center	4 for media center
VTR (VCR)	1 for media center	3 for media center (1 color)	4 for media center (1 color)
Projection Screen	3 for open service 2 for media center	5 for open service 3 for media center	1 permanently mounted screen per classroom (so smaller than 70x70) 4 suitable size
Amplifier	1 for open service 2 for media center	2 for open service 3 for media center	3 for open service 4 for media center
Media Production Equipment	Dry mount press and tacking iron, paper cutter, transparency production equipment, 16mm camera, super 8 camera, 35mm SLK camera; 4x5 camera, darkroom equipment: dryer, enlarger, etc. film splicer (super 8, 16mm) Tape splicer: slide producer; mechanical lettering devices, portable chalkboard		

F. Research and Evaluation of the IMC's function

"Research usually begins with a problem to be resolved or a question which requires an answer. In the broad sense, research can be interpreted as any inquiry into a problem or question for the purpose of resolution." Questions can come from the clients' inquiries, such as "whether it is better to use a film or a filmstrip in his social studies class?", and problems daily confronted by the staff of the IMC. Answers to these inquiries and problems may be very simple or

may not be found without research. However, this is not the only reason to do research work, to discover how to improve and develop the IMC should also be one of the major motivations. The researching areas will be described as the following four topics:

1. Research into AV Education Course

   The main purpose of this job is to keep the instruction and method of the course updated as the students learning today may work as teachers in the near future.

2. Research into the function and administration of the IMC.

   This work is one of the important paths to improve the effectiveness of the IMC's work.

3. Research into improvement of production

   This includes the research of media content and production techniques.

4. Research into the instructional method and the trend of education.

Since the research work has to be started with the understanding of the real situation of the IMC, the evaluation of the IMC becomes a foundation work for the research. Evaluation can be made by students, teachers and the staff of the IMC. The best tool of evaluation is using an evaluative checklist such as the one found in the book "Administering Instructional Media Program" by W. Erickson. As this checklist is very detailed, only the major content items listed below can be copied for reference:

"1. School System Educational Media Services

2. Educational Media Services - Curriculum and instruction

3. The educational media center

4. Physical facilities for educational media

5. budget and finance of the educational media program

6. educational media staff

After the evaluation, a report would be made from the profile sheet as the last step."

PART THREE

Conclusions and Suggestions

Through this study, what was obtained was not only the knowledge of how to design the organization of the IMC, but also a better understanding and awareness of the trend of the IMC which is significant in the building of confidence in work. Following are conclusions and suggestions which can be valuable for the development of an IM Center in Taiwan in order that the instructional function of the IMC can be utilized as quickly as possible.

I. Conclusions

A. The role played by the IMC in the revolution of education may be best described as the title of the book named "The Learning Center; Heart of the School". Today it has been found that modern education has had revolutionary changes. The trend of changes is becoming bigger and bigger. Learning today is not limited to the classroom only. The responsibilities and work of the teachers are also facing tremendous changes. A teacher's job consists of more than instruction. There is plenty of work to be done by the teachers, such as sgudent guidance, choice and preparation of instructional media, the design of teaching procedures, self-study and research. Such work is usually time-consuming. Only an IMC can effectively improve teachers' instruction as well as save teachers' time in order that they can accomplish the time-consuming work mentioned above.

B. Qualification of the IMC Staff

The basic requirements of the IMC staff, based on their

educational background and techniques of product-making and equipment operation have been discussed in many books and there are actual standards which can be applied for evaluation. Except for the knowledge and skill required, however, the staff of the IMC should own an enthusiastic personality to give people the best service.

Having satisfactory service offered is one of the successful achievements of the IMC. Therefore, careful judgement and consideration of the personality of the staff should be a very significant element when making the final decision on employment for the IMC. As the role of the IMC in the educational system in Taiwan needs to be strengthened, only the services offered in the initiative attitude by the IMC staff can really encourage people to utilize media fully and bring the growing development of the IMC in the country. This is why particular emphasis needs to be made on the importance of the personality of IMC staff.

C. The purpose of education is to accomplish two goals: to help the educated have a better adaptation and development in their life. The accomplishment of these goals depends on the maximum development of the potential of the educated. There are too many obstacles in the traditional classroom teaching to reach the goals. Therefore, in a modern educational theory, emphasis must be placed on "individualized learning" which allows a student to learn according to his own learning speed, interest and capability through the design of instruction, arrangement of learning procedure, understanding for each student and

individual guidance by teachers. Achievement of this ideal cannot be made by a textbook only, but by fully utilizing instructional media.

Secondly, the purpose of education is not to make the educated become self-centered individualists, but to have their achievements be a benefit to the human race. In other words, one of the major purposes of education is to make each individual socialized, to have the same society sense, to have the same standards of value so that they can communicate their thinking to each other and create a harmoneous society. Educational m media can overcome the difference of background among the learners and make access to education more equal so that human beings can produce consciousness in common. There is a strong reason to believe that the education of tomorrow will need the mass use of instructional media.

II. Suggestions

A. Teachers colleges and junior normal colleges should establish their own IMC as soon as possible. Students of these colleges should receive pre-service training to enable them to utilize the IM effectively.

B. Enhance the level of the teachers who instruct the AV education course by the methods listed below.

1. Employ teachers holding a masters or higher degree in Audiovisual education.

2. Arrange programs for teachers in audiovisual courses to to abroad for advance study, or a short -term visit.

3. Through an in-service training, a conference, or by inviting specialists either from foreign countries or the Republic of China to work as resource personnel to discuss the solution of practiced problems.

C. Have the education quthorities make an evaluation on the Instructional Media Program in each teacher's college.

APPENDIX

EFLA EVALUATION

Film Title:

Subject-Matter Field:

Producer Source:

So.____Si.____B&W____Color____Sale Price____Rental____Free____

Evaluation Institution:

Names and Titles of Evaluators:

Synopsis: (about 75-100 words, as detailed as possible. Do not use producer's summary)

I. List the possible audiences, and the purposes for which the film would be used. Rate probable value for each purpose.

			Value				
	Audience	Purpose	Low				High
1.			1	2	3	4	5
2.			1	2	3	4	5

II. Recommended age level: Primary____, Intermediate____, Jr.High____, Sr.High____, College____, Adult____.

III. Structure: (organization, editing, continuity) 1 2 3 4 5

Picture quality: (clarity, framing, color, etc.) 1 2 3 4 5

Sound quality: (audibility, voice fidelity, music effects 1 2 3 4 5

IV. Comment and General impression: (Note here any special points as to authenticity, creativity or attitude: also a brief statement of how the film affects you. Use back of sheet if necessary).

V. Your estimate of the value of the film: Poor____Fair____ Average____Good____Very Good____ Excellent____.

LINCOLN COUNTY SCHOOL DISTRICT
EVALUATION REPORT—INSTRUCTIONAL MATERIALS

Name of Evaluator_____ Date_____

Title (of item)_____

Series title _____ Copyright_____ Cost_____

Type of material_____ Distributor_____ Producer_____

A. Does it meet the objectives specified on request form? Yes____ No____

Does it meet any other objectives? Yes____ No____

What are they?_____

_____

B. Principal uses:

_____ Provides factual information
_____ Introduces topic or problem
_____ Culminates activity
_____ Individual study
_____ Skill builder
_____ Raises questions
_____ Attitudes
_____ Appreciation
_____ Multiple concept
_____ Single concept
Other _____

C. Appropriate grade level(s) K 1 2 3 4 5 6 7 8 9 10 11 12

D. Characteristics of material meet the requirements of #4 on preview request form? Yes____ No____ Specify if other_____

E. Will this material be dated in the near future? (5 years) Yes____ No____

F. Potential for pupil interest: 1 2 3 4 5

Low High

Prince George's County Public Schools
Department of Educational Communications
Instructional Services Center

Copy 1 Taped to Material (WHITE)
Copy 2 To Supervisor (YELLOW)
Copy 3 To Vendor/Publisher (PINK)
Copy 4 To Director (BUFF)

Evaluation of Instructional Materials K-12
Summary Card

Requested by: 1 ☐ 2 ☐ 3 ☐ 4 ☐

Date Evaluation Completed _____

Disposition of Materials 1 ☐ 2 ☐ _____ (Da. Mo. Yr.)

Approved ☐ Rejected ☐ Referred to ☐ _____ (Committee)

Justification for Acceptance/Rejection

Comments (Optional)

Textbooks Only: Basal ☐ Sup. ☐ T. E. ☐ Ref. ☐

Media Materials Only: (print or nonprint) Class No. _____

Kind of Material: TB ☐ MP. ☐ NP ☐ P ☐ F ☐ NF ☐

Identification of Nonprint Materials: ☐

Instructional Level K ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐
7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ A ☐

L. Subject Area _____

M. Full Title _____

N. Author _____ O. Price _____

P. Publisher _____ (Name)

_____ (Address)

Q. Copyright Date _____

R. Signature of Reviewers and Evaluators Approving Materials.

1. Classroom Teacher _____
2. Classroom Teacher _____
3. Specialist/Administrator _____
4. Lay Person _____
5. Others – Optional _____
6. Date Approved by Board of Education _____

BALL POINT PEN – PRESS HARD
SIM FORM 1

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS
DEPARTMENT OF EDUCATIONAL COMMUNICATIONS
INSTRUCTIONAL SERVICES CENTER

A LIST OF CRITERIA FOR SELECTION OF INSTRUCTIONAL MATERIALS

POINTS OF QUALITY Accept	POINTS OF INFERIORITY Reject
AUTHENTICITY	
1. Accurate facts	4. Inaccurate facts
2. Facts impartially presented	5. Facts distorted by bias 5S Stereotypes by sex 5R Stereotypes by race
3. Up-to-date information	6. Fake revised version: date only changed.
APPROPRIATENESS	
7. Vocabulary at user's level	11. Vocabulary too easy, difficult or objectionable
8. Concepts at user's level	12. Concepts too easy or difficult
9. Narration, dialogue, sound effects related to subject	13. Narration, dialogue, sound effects unrelated
10. Individual and/or group use suitability	14. Limited individual and/or group use suitability
SCOPE	
15. Full coverage as indicated	18. Gaps in coverage
16. Superior concept development by this means	19. Better concept development by other means
17. Content to satisfy demands for current subjects	20. Irrelevance to current topics
INTEREST	
21. Relationship to user's experience	26. No relationship to user's cultural environment
22. Intellectual challenge	27. No intellectual challenge
23. Imagination appeal	28. Prosaic presentation
24. Human appeal	29. Negative human values
25. Sensory appeal	30. No stimulation
31. Logical development	34. Confused development
32. Pertinence of all sequences	35. Unrelated sequences
33. Balance in use of narration and dialogue, music and sound effects	36. Ineffective or overpowering use of the same elements

TECHNICAL ASPECTS

'. Clarity
3. Intelligibility
). True size relationships
). Unified composition
1. Effective color use
42. Extraneous sounds, visuals too detailed
43. Difficulty in following image and/or sound
44. Unreal size relationships
45. Confused composition
46. Color is less effective than black and white

SPECIAL FEATURES: FORMAT

7. Descriptive notes, teacher's and/or user's guide
8. Print size legible
9. Well-designed layout
0. Illustrations, photos and prints creative
1. Charts and maps clear
2. Plot interesting, clear
3. Characterization well-defined
4. Style creative
5. Detailed index or bibliography
6. Information fair and impartial
57. Absence of useful notes, guides
58. Print crowded on page
59. Print not balanced with illustrations
60. Illustrations, photos and prints trite.
61. Charts and maps cluttered
62. Plot skimpy and confusing
63. Vague characterization
64. Style forced, artificial, dull
65. Lacks index or bibliography
66. Information of inflammatory or sensitive nature

PHYSICAL CHARACTERISTICS

7. Minimum instruction for individual use
8. Attractive packaging
9. Durability
0. Ease of repair
71. Special training requirements for use
72. Unattractive packaging
73. Flimsy construction
74. Difficulty in repairing damage

COST

5. Conformity to budget
6. No less expense for satisfactory substitutes
7. Inexpensive or already purchased equipment
8. Average supplemental costs
79. Too costly for budget
80. Satisfactory substitutes
81. Expensive equipment needed
82. Too expensive to replace, repair, process for use

RECORD OF EVALUATION FOR INSTRUCTIONAL MATERIALS MCPS FORM 365-25

REQUESTED BY SCHOOL NUMBER STAFF MEMBER (S)	DATE ORDERED	SIGNATURES 1.
REC'D BY E & S	SENT TO SCHOOL	2. 3.
DATE	DATE	4. 5.
RETURNED FROM SCHOOL	RETURN TO PUB.	* SUPERVISOR
DATE	DATE	* COMMITTEE
☐ APPROVED ☐ DISAPPROVED	INSURANCE NO.	DATE
COMMENT		

RETURN THIS FORM TO DEPARTMENT OF EDUCATIONAL MEDIA AND TECHNOLOGY EVALUATION AND SELECTION DIVISION

* FOR FILMS AND TEXTBOOKS ONLY

FULL TITLE

AUTHOR	COPYRIGHT DATE
VENDOR OR PUBLISHER	VENDOR CATALOG NUMBER

KIND OF MATERIAL ☐ TB ☐ LB ☐ F ☐ IM — IDENTIFY INSTRUCTIONAL MATERIAL — FILM LENGTH B/W ☐ COLOR ☐

SCHOOL LEVEL	SUBJECT AREA	SUBJECT CODE	GRADE LEVEL
CIRCLE E J S			
LEARNING GROUP	**READING LEVEL**	**UNIT**	**COST**

DISABILITY GROUPING — TEXTBOOKS ONLY — CIRCLE TYPE — B - BASIC, S - SUPPLEMENT, T - TEACHER ED., R - REFERENCE

DISTRIBUTION: ORIGINAL/E&S permanent file WHITE/vendor PINK/E&S circulation file BLUE/E&S subject file YELLOW/E&S temporary file GOLD/staff file

G. Content organization: 1 2 3 4 5

Low High

H. Preparation for use time:_____
Is the amount of time to use this item justified by the content?
Yes____ No____

I. What skills are necessary to properly use this item?_____

J. Is this the best medium; does the item justify its cost given the objective(s)?
Yes____ No____

K. Is the subject of the item an area of weakness in the District?
Yes____ No____

If the item duplicates content in materials already owned by the District, then is it sufficiently superior to warrant supplanting the older items?
Yes____ No____

L. Are the vocabulary and/or phrases appropriate? Yes____ No____

M. Are instructions, teachers guide and/or stated objective(s) included? (Circle) Others:

SAMPLE MEDIA EVALUATION FORM

(Circle) Book, Chart, Film, Filmstrip, Recording, Map, Model, Sound Filmstrip, Videotape, Other_____

TITLE_____ Reviewed by_____ Date_____

Description: Color_____ Time_____ Pages_____ Size_____ Date_____

Purchase Price_____ Purchase Source_____

USE DATA: Recommended Grade Level_____ Unit of Study_____

Is the content valid, correct, and truthful? Yes_____ No_____

(Does this material provide additional desirable information which is above and beyond what you can now provide with materials currently used in this context?)

Yes_____ No_____ If "Yes", what?

EVALUATION

Objectives: Explicit and Stated____ Implicit; not stated____ Not evident____

Content: Superficial____ Too Detailed____ Well Balanced____

Authenticity: Acceptable____ Not acceptable____

Vocabulary: Excellent____ Good____ Poor____

Organization and Continuity: Excellent____ Good____ Poor____

Photography or format: Excellent____ Good____ Poor

Sound: Excellent____ Good____ Poor ____

Teachers Guide or Manual: Excellent____ Good____ Poor____

GENERAL RATING: Excellent____ Good____ Poor____

RECOMMENDED FOR FUTURE USE? Yes____ No____ Reason:____

FOOTNOTES

1. Edgar Dale, "Audiovisual Methods in Teaching," Third Ed., The Dryden Press Inc., 1969, P. 6.

2. Harold S. Davis, "Instructional Media Center," Indiana University Press, 1971, p. xi

3. James W. Brown and Kenneth D. Norberg and Sara K. Srygley, Administering Educational Media: Instructional Technology and Library Services," McGraw-Hill Book Company, 1972, Second Edition, p. 386.

4. Ibid., p. 386.

5. Carlton W. H. Erickson "Administering Instructional Media Programs," the Macmillan Company, 1968, p. 177.

6. Ibid., p. 426 - 427.

7. Ibid., p. 316

8. Ibid., p. 377

9. Ibid., ps. 616 - 625.

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American Library Association and National Education Association, "Standards for School Media Programs."