Developing educational media centers for secondary schools in Malaysia

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Abstract
The media center is a repository of knowledge and is indispensable in providing quality education that is greatly needed in developing countries. This paper discusses media centers at school level. The models focused on are those of a developed country. Based on the experiences of a developed country in this field, a proposal is presented in this paper for setting up a media center in secondary schools in Malaysia, but local environment and needs are taken into consideration. This proposal will have many implications in the educational field in Malaysia. It will promote quality education as well as generate innovation and change. The central theme of this paper is that a media center at the school level must be systematically planned, organized, and managed, and that it must be provided with sufficient number of personnel, materials, equipment, and facilities in order to function effectively and efficiently.

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DEVELOPING EDUCATIONAL MEDIA CENTERS FOR
SECONDARY SCHOOLS IN MALAYSIA

A Research Paper
Presented to
The Department of Curriculum and Instruction
University of Northern Iowa

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Ismail Haji Adnan
This Research Paper by: Ismail Haji Adnan

Entitled: DEVELOPING EDUCATIONAL MEDIA CENTERS FOR SECONDARY SCHOOLS IN MALAYSIA

Has been approved as meeting the research paper requirements for the Degree of Master of Arts

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ABSTRACT

The media center is a repository of knowledge and is indispensable in providing quality education that is greatly needed in developing countries. This paper discusses media centers at school level. The models focused on are those of a developed country.

Based on the experiences of a developed country in this field, a proposal is presented in this paper for setting up a media center in secondary schools in Malaysia, but local environment and needs are taken into consideration. This proposal will have many implications in the educational field in Malaysia. It will promote quality education as well as generate innovation and change.

The central theme of this paper is that a media center at the school level must be systematically planned, organized, and managed, and that it must be provided with sufficient number of personnel, materials, equipment, and facilities in order to function effectively and efficiently.
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CHAPTER I
INTRODUCTION

Statement of the Problem

Changes in education are influenced by the social, economic, political, scientific, and technological content of the present time. During the past years, the library has played an integral role as a repository of knowledge in schools in Malaysia. Technological development in recent years has made it possible to use a wide range of non-print materials such as films, slides, models, radio, television, computers, etc., together with print materials in the teaching and learning process. In other words, technology makes a significant impact on a school's curriculum, and it provides students and teachers with many new opportunities for creative self-expression through the use of media. Using these materials effectively will make education more productive, more powerful, and more immediate. But one problem commonly encountered when introducing technological innovation in education is that of teachers' resistance to it. According to Chu and Schram (1967), this teacher resistance must be accepted as a fact, and that it is a common phenomenon in developing countries where the value systems do not encourage innovations.

Tyler (1980) mentions the positive and negative aspects of innovation that may well explain, to a certain extent, this teacher resistance. According to him, a teacher will use a new technology if:
(a) it will perform tasks which are distasteful or boring to him, and
(b) it will perform tasks which he recognizes as important, but has
not been able to perform effectively or easily. The negative aspects are:

1. Teachers do not believe that most children can learn without the help of teachers.

2. Complicated devices or devices that require extensive training in order to use are not readily accepted by most teachers.

3. The cost of equipment must be within the school budget.

From the historical perspective, the education agency in Malaysia has been instrumental in encouraging teachers to use media in promoting a better quality education, but it has suffered certain constraints at the school level. Mohamad (1985) pointed out that these constraints are due to the following:

1. Lack of specially trained personnel at state and school levels.

2. Lack of materials and equipment at state and school levels.

3. Utilization of educational media service materials are not emphasized at state and school levels.

4. Lack of funds to provide supporting materials at school level. (p. 103)

Objectives of the Study

This paper attempts to describe the concepts, objectives, and functions of an educational media center, and find ways to show how this organization can be used to overcome the present problems in the utilization of media in secondary schools in Malaysia. The discussion will be based on the philosophy of the media center and the experience of a developed country in this field. Thus, the finding will be meaningful to assist the Educational Media Service of the
Ministry of Education, Malaysia, in providing services and facilities for educational technology activities to all schools in Malaysia, as suggested by the Report of the Cabinet Committee to Review the Implementation of Education Policy (Mohamad, 1985).

Media in Malaysia

Like most developing countries, Malaysia acknowledges that education is the key to social, economic, and political development. Education is centrally administered by a Federal Ministry of Education which is responsible for all levels of education—primary, secondary, vocational, technical, special, and higher education. A centralized curriculum, prescribed by the government, is in force in all schools. As stated by Cowen and McLean (1984, p. 370), "partly as colonial legacy from the past, but nowadays as a conscious attempt to build a nation out of the diverse races, languages, and religions, the Malaysian system of education is highly centralized." In this respect, the education policy, as defined by the Education Act 1961, is to establish a national system of education. This system will satisfy the needs of the nation and promote its cultural, social, economic, and political development, and for the progressive development of an education system in which the national language is the main medium of instruction (Mohamad, 1985).

The contribution which library and audio-visual materials could make to achieve the needs of the education policy has already been partially recognized. There has been a library in each secondary school in Malaysia ever since formal education was started in the Nineteenth Century, even though some weaknesses still exist in school
libraries, such as inadequacies in the physical facilities (Mohamad, 1986). The organization of the use of audio-visual materials in secondary schools was started way back in 1956 with the introduction of film strips for classroom teaching. Prior to this period teachers used such aids as wall charts, pictures, maps, and models for instruction.

With the later addition of school syllabi and course contents to the Malaysian School System, the need for new materials was urgent, and the Audio-Visual Aids Section was therefore established within the Ministry of Education. This section initiated a number of projects and programs, for example: (a) the production of film strips on Malaysian topics, (b) the in-service course for teachers in the utilization of audio-visual aids, (c) the supply of basic equipment to schools, (d) the establishment of a library of films, film strips and tapes, and (e) the production program of wall charts and picture sets for schools. The section also published a bi-annual Audio-Visual Bulletin for teachers.

In 1966 the School's Broadcasting Service came into existence and this was a further extension of the media program for schools. Schools were supplied with radio sets and each year more and more schools listened to the radio programs.

The development of a media service for the teaching and learning process in Malaysian schools reached another phase when the educational television program, after preliminary trials as a pilot project in 1965 and 1966, was included in the Second Malaysian Plan of 1971-1975. Under this plan, the Educational Media Service was formed
in 1972. This service, which is a division of the Ministry of Education, consists of an Audio-Visual Aids Section, an Educational Radio Section, and an Educational Television Section (Ali, 1980).

According to government reports (Ali, 1980; Mohamad, 1985; Tan, 1978), the objectives of the Educational Media Service are:

1. To assist in complementing education programs in schools, especially those in rural areas.

2. To upgrade the quality of education through demonstrations of model teaching methods, and to make available supplementary audio-visual aids.

3. To assist efforts in educational innovation through fast and effective presentation.

4. To motivate pupils through interesting teaching materials by using good audio-visual techniques, thus enabling teachers to focus more attention on pupils in the class.

5. To offer assistance in the use of new media service techniques in the pre-service and in-service teacher training programs.

6. To assist in the teaching of vocational and technical subjects.

7. To promote social awareness and unity among the people through civic education programs.

8. To upgrade the quality of Bahasa Malaysia (Malaysian Language) and English Language through language programs.

9. To produce guide books for teachers and learning materials for pupils in the form of graphics, puppets, films, and animation.

10. To upgrade the quality and to extend the teaching of sociological subjects and other subjects like art and crafts, physical education, and music.

11. To disseminate information on innovations and development in the field of education to teachers, parents, and the public through the program "The World of Education." (p. 62)
The establishment of an Educational Media Service is a further step forward toward the improvement of the quality of education provided in the Malaysian school system. In order to effectively implement Educational Media Service projects and programs at the state level, State Educational Media Officers have been appointed. Their duties include: (a) distribution of audio-visual materials and equipment to schools, (b) evaluation of programs and feedback to the Ministry of Education, (c) conduct special workshops and courses, and (d) inspection of schools and assistance to them in regard to utilization of educational media services.

In the present situation it is believed that the objectives of the National Educational Media Service can be achieved, among other things, through the establishment of a media center for each school in Malaysia. It is hoped that due consideration will be given by the relevant authorities.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

A quality education depends on the goals and objectives that are established in the curriculum. The successful implementation of the curriculum necessitates the use of media. In the literature it was found that the essence of media in the teaching and learning is not only to make teaching effective, but more important "is to make learning meaningful for the students." In this respect, the quality of a school media program and its depth of resources, services, and personnel will become an integral part of the overall curriculum development as well as an essential ingredient of quality education. As indicated by Baker (1977), media programs will "promote the development of critical thinking, the desire to learn through life" (p. 33) and "offer the information and extraordinary opportunity to transcend the limitation of the past and shape the ways by which people come into contact with, assimilate, and use information" (p. 45). American Library Association/Association for Educational Communications and Technology (ALA/AECT) (1975, pp. 4-5) indicated that the media programs are designed to meet specific needs as follows:

1. Assist learners to grow in their ability to find, generate, evaluate, and apply information that helps them to function effectively in society.

2. Support and further the purpose formulated by the school or district of which it is an integral part, and its quality is judged by its effectiveness in achieving program purposes.
3. Contribute to the life experience of users and their individual self-fulfillment.

4. Seek the widest possible uses of media resources.

The Media Center: Definitions

When translating media programs into action, educators have been developing many new teaching strategies and organizational patterns that break with traditional modes. Examples of these educational strategies are individualized instruction, team teaching, large group and small group instruction, and directed study programs. An attempt to promote learning through programs has led to the creation of a new agency within the school that unifies both the audio-visual department and library into one integrated service known as the school media center.

The publication of the Standard for School Media Program in 1969, under the joint sponsorship of the National Education Association, the Association for Education Communication and Technology, and the American Library Association was the important milestone in the history of media centers. It formally announced the concept of a fully integrated media program embracing both print and non-print materials. Previously the library service and the audio-visual department had operated separately. Following this publication, "more schools and colleges are now moving in the direction of multi-media programs for managing instructional resources and toward their full integration in the administrative structure" (Brown, Lewis, & Harcleroad, 1977, p. ix).

However, the names given to the organization of media in schools vary. According to United Nations Educational, Social and Cultural
Organization (UNESCO) (1977, p. 7) "there are names other than media centers given to this organization such as Instructional Materials Center, Learning Resource Center, Library Media Center, and Multi-Media Center."

Church (1970) observed that some organizations have been established for the administration of instructional materials and to facilitate curriculum planning. These organizations carry such names as Curriculum Laboratory, Instructional Materials Center, Teaching Aid Laboratory, Educational Communications Center, New Media Center, Learning Resources Center and various combinations of these terms.

Miller (1969, p. 7) remarked that:

the concept of a unified service including both library and audio-visual materials is receiving rapid acceptance among educators. Whether it is called Materials Center, Curriculum Laboratory, or Learning Resources Library, its purpose is to help create a richer learning environment through providing appropriate learning materials, experiences, and resources.

In this respect, the idea behind all the names is the same. According to Hick and Tillin (1970), the Instructional Materials Center and Media Center are conceptually similar and both have developed from efforts to combine audio-visual services for classroom teachers with media services for individual students. The Instructional Materials Center was created first with the primary purpose of providing different kinds of media or instructional materials for teachers to assist them in teaching groups of students. Services to the individual student were not included. When materials and equipment became available for individual use, the service to the students was included and the Instructional Materials Center became
the Media Center. In other words, the newer Media Center deals with both teachers and students.

According to the Standard for School Media Programs (ALA/NEA, 1969, p. vx), a media center is "a learning center in a school where a full range of print and audio-visual media, necessary equipment, and services from media specialists are accessible to students and teachers." Gillespie and Spirt (1973, p. 20) defined the center as "an area composed of many programs in which all types of collection and services exist in arrangements to facilitate rather than restrict use and encourage progress toward present and future educational goals."

**Media Center Functions**

Several authors (Brown et al., 1965; Galvin, Kimmel, & Whiter, 1980; Gillespie & Spirt, 1973; Taggart, 1980) agreed that the basic purpose of media centers is to provide leadership in making instructional materials available for the growth of individual students. In other words, it provides opportunities for developing new methods of instruction, designing curriculum, organizing materials and equipment collection, administering programs, and improving communication between teachers and students. In this context, a media center provides genuine support and motivation for effective teaching and learning, and for the realization of educational goals as formulated in the school's curricula.

However, this function of a media center is insufficient if we are to view it within the context of the educational process which involves the intellectual, physical, and social skills of students.
These skills are demonstrated in the learning process. The learning process starts with a set of objectives based on desired social values which are reflected in the attitudes and actions of students. To ensure the outcome of these values, the teachers must be knowledgeable of the students' capabilities in the learning process in order to provide the necessary learning experiences, so that they can become productive human beings who can fit into society. This would mean that desirable educational experiences must be identified and that the most effective tools and materials be employed. The students need to learn not only the skills in the three R's, but also the skills of observation, listening, and social interaction. They need to develop a desire or inquiry, self-motivation, self-discipline, and self-evaluation. They will also need to master knowledge and develop skills. In the final analysis, they must be able to communicate their ideas with their fellow students. All these are the basics of education which the teachers and their full array of media should seek to achieve.

Wartenberg and Gerhard (1969) gave the following basic premises underlying educational purposes:

Education is a process in which pupils, teachers, and the curriculum interact. This process of interaction results in undesirable changes in pupils' behavior. The kinds of pupil behavior to be changed in the schools may be classified into six goal areas: knowledge, tool skills, thinking processes, self-direction, social effectiveness, and human values. (p. 19)

We can, therefore, note that the status of a media center must be seen in a larger perspective. A media center should not only provide the supporting services that the teacher may require in the process of imparting knowledge, but must also provide the necessary educational
experiences for the students. In other words, a media center provides the shift in learning from "teacher-centered" to "student-centered."

Within this context, the media center plays a vital role. It accounts for individual differences and individual needs, and more importantly, it provides the opportunity for individualized learning. The philosophy of the media center must be service to students (Philips, 1969). Maryland Office of School Media Service (1978, p. 5) indicated that "school media programs should provide a multi-sensory approach to learning for students with varying backgrounds, abilities, needs, and interests to meet the needs and concerns of children growing up in the world of today." The school media center, therefore, is a fundamental part of the total educational process.

According to Philips (1969), the rationale for a media center is based on the fact that we live in an age whose complexity grows ever greater. No one medium can be considered as fully capable of providing information and concepts which are unambiguous to students. Each medium has its particular strengths and weaknesses. To fulfill the needs of modern education, the multi-media approach to teaching and learning is a necessity. Schuller (1954) shared this view, and according to him, educators should give consideration to the following when using audio-visual materials in teaching:

1. Audio-visual materials are means to an end rather than ends in themselves.

2. There is no one best tool in the audio-visual kit.

3. Audio-visual materials must be incorporated and used as integral parts of the lesson.

4. Audio-visual materials are normally best used in combination. (p. 32)
All these materials indicate that in a particular school all the media should be made available through a single facility which is called the media center. The media center, in this context, is a vital part of the instructional program of any school. According to the Maryland Office of School Media Services (1978, p. 8), "the purpose of the school media center is to provide information to the learner about other people, places, cultures, and time, where its resources can provide concepts, ideas, and feelings about the complex world in which we live. Through human and technical resources it enables the teacher to interact with the learner in a manner not possible in traditional education." With relation to this purpose, the function of the media center is "to support the philosophy, programs and educational objectives of the individual schools. In other words, "the media center performs a tri-function--as the materials center, an instructional center, and a service center" (Izumo, 1976, p. 9).

In this respect, it is important that the media specialists participate actively in shaping the learning environment and the design of instruction, and that every media facility, equipment, book or material must be selected and made available to students. The learning atmosphere, therefore, will be one full of challenges where the students can demonstrate their various skills and capabilities at their own rate, and so enjoy a free, exciting, and enriched life.

**Need for a Media Center**

The media center can be conceptualized as a learning station, well-stocked with materials in a variety of formats and designs. It
gives both students and teachers the opportunity to select the media that is best suited to meet their specific needs.

One important aspect of the media center is that it enables teachers to take a multi-media approach to teaching. For example, to change the behavior of children in the six goal areas of education a teacher should take into account the nature of learning (Wartenberg & Gerhard, 1969). Children have different learning styles and no two students can learn and progress at the same rate. They need a variety of methods and techniques to lead them to the understanding or mastery of skills in the thinking processes. This is where the teachers can apply the multi-media approach in their teaching. Many studies have indicated that the use of a variety of media improves learning. Harding (1969, p. 23) mentioned the following studies which imply that the multi-media approach has positive effects on learning:

1. The Knowlton and Tilton studies in 1929 found that films improve retention. This was supported by the Rulon studies in 1935.

2. The series of studies conducted by the U.S. Army in World War II found that with the use of film and other media, not only were facts retained longer, but opinions changed.

3. In other studies, low I.Q. students increased their grasp of material at a greater rate than high I.Q. students, though they never attained the level of the high I.Q. students.

Various other studies and research that has been undertaken (Schuller, 1954) indicated that field trips, flat pictures, film strips, slides, and educational motion pictures can contribute significantly toward teaching and learning. However, regardless of differences in theories and findings, basic principles involving learning should be taken into consideration: (a) children learn as
individuals, (b) children learn at various rates, (c) children learn according to different styles and patterns, and (d) education is a continuous process (Gillespie & Spirt, 1973, p. 14).

From these points of view, we can therefore establish the fact that textbooks and lectures are perhaps the least effective teaching tools, and that the media center is more than a necessity in a school in terms of the services that it can render to both teachers and students in the instructional and learning process. In the wake of new developments and technologies, with new ideas and concepts, the increases in student enrollments, and educational innovations, and the changing curricular patterns, the media center is a force to be reckoned with (IDPI, 1969, p. 3). It promises a lot of things for students and teachers alike. Miller (1969) gave the following view on the role of the media center in the modern educational scene:

The population explosion has filled our classroom, and the explosion of knowledge has filled working hours. There has also been an explosive-like revolution in teaching methods and in the amount of material created for instructional purposes. Aiding teachers and students in dealing with the flood of knowledge, assisting them in using the wealth of instructional aids now available, and helping them to employ effectively the methods and 'hardwares' of the new teaching technology is the function of an instructional materials center. (p. 7)

Present-day schools should react positively to these new trends and phenomena. Educators must be aware that most students entering the school system come from a multi-media home environment and it would do them an injustice if they were to be placed in a system where an out-moded single method is used. The school that can accommodate modern technology in its system can be said to be giving a quality education.
The impact of technology and modernization on education has caused "an explosive-like revolution in teaching methods and in the amount of materials created for instructional purposes" (Miller, 1969, p. 7). One element that has great relevance to a media center is the concept of "system" or "system approach" in teaching and learning. By "system approach" it means "the programmed use of media in a predetermined, structured pattern designed to build understanding of a given topic, concept, process, experiment, etc. in a logical, balanced progression or sequence" (Davies, 1974, p. 465). The concept of "system" in education has resulted in the educational media program being part and parcel of the total instruction system, and not just a subordinate to it (Brown et al., 1977). Above all, the systems approach calls for the need and total involvement of a media center which provides all the materials, the resources, the expertise, and the necessary ingredients, as stated by Erickson, (1968):

When we consider the roles played by media in the use of instructional systems, referring to both media material and hardware, we assert what is obvious—that media are indispensable components of such systems. (pp. 460-461)

**Summary of the Literature**

To summarize, we can say that mass media and technology have acted as catalysts in the process of change in the field of education. Today's classrooms are becoming more complex and are under great pressure to change. The school must therefore react accordingly to meet these trends. One of the steps that the school has to take is to be ready to begin developing the media center by unifying the
traditional library and audio-visual departments into one integrated service.

DeBernardis, as quoted by Erickson (1968), pointed out the advantages of a unified media center to be:

1. It minimizes the tendency to look upon certain instructional aids as entirely unique and therefore unrelated to the general process of education.

2. It provides better coordination of service functions of purchase, distribution, and maintenance.

3. It has elicited more coordinated effort on the part of staff in the in-service growth of teachers.

4. It makes for greater economy, both in use of materials and in effort by staff and the classroom teachers.

5. It has provided more effective coordination of aids within each school.

6. It has made possible a more efficient inventory.

7. It has made possible a better implementation of the curriculum. (p. 303)

According to the Media Standards (ALA/NEA, 1969), a comprehensive and coordinated media program for the schools is important if educational goals for the schools are to be fully met. This calls for either a unified administrative organization combining the library and audio-visual services, or the coordination of these two services with proper cooperative planning and communication. One advantage of a unified or coordinated administrative organization is that it ensures maximum efficiency and economy, and avoidance of duplication of services. McGinniss (1969, p. 156) summarized it by using four E's: Economy, Efficiency, Excellence, and Enrichment. In this respect, Brown et al., 1977) said:
It is interesting to note that as early as eight years prior to publication of the Joint Standard (1969), the CCSSO (Council of Chief State School Officers) had accepted the principles of a unified program of educational media and encouraged statewide programs to implement the concept. (p. 79)

However, many things should be explored before the task of converting the library and audio-visual departments into a media center takes place. Gillespie and Spirt (1973) underlined six steps to be taken in carrying out the task:

1. Identify a curriculum or recreational area around which to build the media concept.

2. Contact one or two teachers who are interested in working cooperatively to build a balanced media collection in the one area.

3. Encourage the students to use media in the developing collection for individual satisfaction as well as for classroom work. Simple production of transparencies and laminating pictures are two possibilities.

4. Encourage other teachers and students to participate to the extent that staff and funds are available.

5. If necessary, postpone organizational details, such as an integrated book or card catalog, in favor of creating interest in the use of media and eventually persuading the principal to provide additional support.

6. Enlist the support of the principal and administration for instituting an increasing role for multi-media in the center. (p. 33)
CHAPTER III
RECOMMENDATIONS

The media centers described in Chapter II are those of a developed country. Therefore, in developing media centers for secondary schools in Malaysia, one should be selective and adaptive, choosing only the features or aspects of the models that have relevancy and are compatible with the local environment and educational needs. For example, the use of a dial access system certainly does not meet the immediate educational needs in Malaysia. However, provision should be made for its growth and progress. What the author is trying to say throughout this paper is that a media center should be properly planned, organized, and managed especially in terms of services, personnel, and facilities in order to fulfill its expected role. Baikie (1970) made a cautionary remark on the unplanned media programs in the developing countries:

A discouraging aspect of media programs in developing countries is that the life of most of them is usually short or not organized. In our enthusiasm to establish media programs, we often forget to consider the important ingredient that would sustain the life of the program we are about to build. We haphazardly rush into operating programs without adequate initial planning. Among the prerequisites for the success of a program is good planning from the outset. (p. 8)

In proposing the development of media centers for secondary schools in Malaysia, the following recommendations are made which are based on the previous discussion about media:

1. The library and audio-visual services in schools should be integrated to form a unified media service.

2. The present "school media centers" should be strengthened.
3. Media Standards should be established and adopted by all schools.

Recommendation 1: The library and audio-visual services in schools should be integrated to form a unified media service

At present, because of policy matters, these two services in secondary schools in Malaysia operate separately. In view of what has been discussed about media and the proper roles of a media center, it is recommended that these two services be integrated under one administrative unit, and that the unit forms a section of the school media center, with the consequential benefits being realized when resources, manpower, and expertise are pooled together. Only in this way can the media center function effectively and economically.

Another advantage of a unified or coordinated media service in school is that it will ensure maximum efficiency and avoidance of duplication of services.

Further, the library which was conceived as a place where books are classified, stored, and used, is a thing of the past and will not meet the expanded information retrieval needs of the future. It is suggested, therefore, that the library in the school be replaced by a media center, in which books are simply one of the sources from which students acquire new ideas and information.

Recommendation 2: The present "school media centers" should be strengthened

It is important that the existing school media centers should receive additional input in terms of personnel and facilities, so that they can function effectively and efficiently.
The media center caters mainly to the media needs of the particular school which will include the school library, the instructional materials, educational radio, and educational television. It will see that all these media are properly utilized by staff and students of the school. It is important that it maintains a record of media activities in the school and keeps both the district and state education departments constantly informed about the difficulties and problems that are experienced by the teachers and students, so that solutions and help can be readily rendered. This is especially so with regard to breakdown of equipment and getting it repaired on time in rural schools.

There is the necessity for the center to conduct a media promotion campaign from time-to-time to familiarize and popularize media among its teachers. This is especially true regarding new materials and equipment and for details regarding assistance which can be solicited from the district or state media center. Training materials too can be borrowed from the other two centers whenever there is a need to organize an in-service program for its own teachers.

The staff of the media center should consist of the media coordinator and his assistants. He should be a media specialist and will be answerable to the school's principal, but he should maintain liaison with both the district and state media center via the principal. It is suggested that his service as a media coordinator be full-time or that his teaching load be reasonably reduced to enable
him to serve effectively. Students of the school can be trained to of the school can be trained to assist with the routine activities of the center on a work-shift basis.

Recommendation 3: Media Standards should be established and adopted by all schools

The formulation of these Standards will assist all schools in Malaysia in evaluating their media needs and in selecting new media equipment and materials. Each media center in the school should have a minimum amount of equipment and materials (hardware and software) and other materials that should include books, magazines, newspapers, and pamphlets that are appropriate to the curriculum and for other interests of students.

It is suggested that a committee be formed when formulating the Standards for media that will consist of teachers, principals, school administrators and supervisors, curriculum specialists, librarians and media specialists.

The Implications of the Proposal

Based on the philosophy of a media center, and the experiences of a developed country in this field, a proposal is presented for the setting up of media centers in secondary schools in Malaysia which takes account of the local environment and needs. This proposal will have many implications in the educational field in Malaysia. It will generate innovation and change, and most importantly, it will help promote quality education that is greatly desired in the developing countries.
To be specific, the implications of the proposal of a media center in secondary schools in Malaysia will be manifold, among which are the following:

1. **Effective support system for the national Educational Media Service, Ministry of Education.** The media center, with its proper organization in terms of personnel, facilities, and services will ensure the effective implementation of the media programs of the National Educational Media Service. It will also introduce the concept of media and media center as distinguished from the audio-visual aids and library. Under this concept, greater emphasis is placed on self-instruction from a wide variety of sources including the library books.

2. **Quality teaching and meaningful learning.** The efforts in giving quality education in Malaysia can be boosted by the use of media centers. Media can aid the teachers to be effective and the students acquire meaningful learning. Abstract ideas of concepts can be brought down to earth through the use of media that would otherwise be difficult to explain or understand if verbal skill alone is used. Students can supplement classroom learning with outside learning via the use of the school's media center. Media as a concept will be treated in a wider sense. Teachers will view media not only as intermediaries in teaching, but also as being self-instructional in themselves.

3. **Promoting teachers' competency.** The teachers will be exposed and updated regarding media and its applications in the teaching and learning process. They will be able to develop competencies and
skills in handling teaching-learning problems in the classroom through the use of multi-media or inter-media techniques.

4. Resistance to media will be minimized. The utilization of media will be widely publicized resulting in teachers' resistance to media being minimized. This can be realized through workshops, in-house training programs, guidance, and assistance rendered by the media centers.

5. Motivate instructional development. The media center, with its resources and facilities, can provide an impetus in instructional development in Malaysia. This can be done through workshops, seminars, conventions, and conferences where new ideas can be discussed, examined, and experimented.

6. Production of instructional materials. Local production of instructional material can be enhanced in the media center using its facilities and personnel. This may include small budget production or low cost media using local materials and talents. Students, with the guidance of teachers and media specialists, can be trained to help the media materials production.

7. Extension of media experiences. Local teachers may have received training in the use of media in the teaching colleges, but when they are sent to schools or to localities that lack media facilities, they will not be able to make use of their knowledge and expertise. The media center can be an effective solution to this problem.

8. Effective storage and maintenance system. Because of high relative humidity and heat prevalent in tropical countries,
the storing of electronic equipment and sensitive materials is a great problem. There are very few schools in Malaysia that have an air-conditioning system. In this respect, the media center, with its storage facility and maintenance services, can help safeguard this hardware and software, thus maintaining the life expectancy or even extending the useful lives.

Conclusion

This paper has made an attempt to create a proposal for the development of the media center for secondary schools in Malaysia. An attempt has also been made to explain the concept of media as opposed to audio-visual aids. The notion of audio-visual aids is out-moded and is no longer valid in this modern era of education. It does not meet the wide range of application in the teaching and learning process, the term audio-visual aids is restrictive in meaning and concept. However, media has a wider application. Besides being used as aids in teaching by the teacher, media is also self-instructional for the students. In other words, a student can learn on his own with the use of media. This modern application of media is important in making the student be self-reliant and have an inquiring mind or inquisitiveness in his learning pursuits. Viewed in this way, the teacher's role will not just be an imparter of knowledge as traditionally held, but also a facilitator of learning.

In the wake of new developments and modern technology, as well as the explosion of knowledge that is rapidly being felt in the developing countries, learning can no longer take place in the confines of the textbooks and four walls of the classroom. The media
center must be a repository of knowledge and is indispensable in providing quality education and in facilitating learning. Although it is expensive to establish a functional media center, the modern school of today cannot afford to be without one.

Since the concepts of media and media center in the teaching and learning process are relatively new in the developing countries, it is only right and proper that a study of a developed country in this field be made. To this end, the paper has discussed media centers in the United States as specifically the school level.

In conclusion, it is important to state that there are other factors that contribute toward making a media center effective or functional which are beyond the scope of this paper to discuss. Such other factors as finance, clients (users of media centers) or other aspects of management are all equally important and have a direct influence on the organization of a media center. Schmid (1980, p. 3) described an operational environment of a media center as consisting of "clients, management, staff, politics, facilities, equipment, and budget which establish the center's boundaries of growth."

It is vital that the proper roles of media centers be determined, appreciated, and understood by teachers, educators, and school administrators. This is necessary so that these media centers will not suffer a setback in giving the leadership, guidance, and direction in media utilization in schools in Malaysia. No doubt there will be certain problems in implementing this proposal, ranging from psychological-cultural to technical-political as well as administrative problems. It is important that such problems be
studied and understood by the relevant authorities so that strategies
can be developed in overcoming them. But, what is important is that
technological innovators should be optimistic in bringing about change
that would be for the better. In this context, optimism is a moral
duty for the educational technologists.
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