Media Technology, Adult Education, and National Development: The Malaysian Experience

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ABSTRAK

Kegunaan media teknologi di dalam program pendidikan orang-orang dewasa di Malaysia di dalam konteks pembangunan kebangsaan secara keseluruhan telah dikaji. Metodologi kualitatif yang merangkumi pengawasan bukan peserta, laporan temuduga, dan koleksi arkib bahan-bahan berita, syarahan, dan lain-lain bahan bercetak digunakan untuk mengkaji tiga perkara: 1) mentakrifkan asas dan fungsi kebolehan menulis dan membaca di Malaysia, 2) peranan media teknologi di dalam pendidikan orang dewasa, 3) kesan sosial yang timbul dan kesan format pendidikan yang di pengaruhi oleh media ke atas perkembangan peribadi, sosial, kebudayaan dan politik. Rangka teori untuk kajian ini termasuklah model-model pembangunan kebangsaan, kebolehan membaca dan menulis di kalangan orang dewasa di negara-negara membangun, dan pendidikan berjarak sebagai suatu penyampaian sistem pendidikan, dengan analisa keputusan di dalam satu model neo-modernisasi pembangunan kebangsaan. Walaupun tiada bukti bahawa suatu asas pendidikan orang dewasa yang sistematik wujud di Malaysia, terdapat berbagai aktiviti berkaitan yang tidak formal untuk orang-orang dewasa, yang mana kebanyakannya dihasilkan atau dipengaruhi oleh media. Kajian ini mempersoalkan kesesuaian teknik pendidikan berjarak untuk mendidik orang-orang dewasa di Malaysia yang tidak lagi berada di bawah sistem persekolahan formal. Implikasi hasil kajian ini untuk para pendidik, pentadbir dan pembuat polisi di Malaysia, dan kesannya ke atas teori pembangunan kebangsaan dibincangkan.

ABSTRACT

This article explores the use of media technology in Malaysia's adult education programmes within an overall national development context. A qualitative methodology incorporating non-participant observation, reportorial interviews, and archival collection of news articles, speeches, and other printed materials was used to investigate three areas of research questions: 1) defining basic and functional literacy in Malaysia, 2) the role of media technology in adult education, and 3) the social impact mediated and media-enhanced educational formats on personal, social, cultural, and political development. The theoretical framework for the study includes national development models, adult literacy in developing countries, and distance education as an educational delivery system, with the analysis of the results within a neo-Modernization model of national development. Although no evidence of systematic adult basic education in Malaysia was found, there are diverse nonformal functional literacy activities for adults, many of which are mediated or media-enhanced. The study questions the appropriateness of distance education techniques for teaching Malaysian adults who are no longer in the formal school system. The implications of the findings for Malaysian educators, administrators, and policymakers, and the impact of these results on national development theory are discussed.

INTRODUCTION

Developing countries often target education, particularly adult basic and functional literacy formats, as a prominent variable in national development strategies, emphasizing the need for human resource development. Adult education in developing countries differs greatly from that in developed nations, partially because of different

needs of the nations and peoples, partially because of different resources available to initiate and to maintain education programs; also because of the nation-building role that education plays in overall development of the nation (Darkenwald and Merriam 1982). In some instances, media have been conscripted by developing countries to actively participate in national development plans

as distributors of both formal and nonformal adult education.

Western researchers have shown little interest in the effectiveness of media-enhanced and mediated adult basic and functional literacy programs in developing Southeast Asian countries. Probable reasons for this apparent dearth of research literature include language barriers and a lack of interest within scientific communities due to prejudices and misconceptions concerning the value of studying media-enhanced educational formats within developing Southeast Asian countries.

Media are potentially powerful tools for overcoming obstacles to adult education. The Asia-Pacific Programme of Education for All (APPEAL) has noted three areas in which the media can be used to address barriers to adult education: (a) gaining entrance to inaccessible rural areas, (b) connecting remote groups, and (c) introducing new teaching methods that empower an education system based on the needs of the local people (Jizawa 1990). But media are implemented and used within a particular sociocultural context. Culture, economics, politics, and other factors influence what resources are chosen for the dissemination of education, who is to receive that education, and the purpose and format of the education.

To ensure a more complete and contextual understanding of adult education, the topic should be studied within a holistic framework of various disciplines, such as communications and national development (Charters 1981) (Darkenwald and Merriam 1982; Nerone 1988; Graff 1988; and Ewert 1990). Because adult education, particularly literacy training, differs within various cultures, the adoption of education models without considering their possible impact could be harmful to development needs. Education programmes need to be developed according to specific needs of a culture, rather than transplanted from foreign models (Knowles 1977; Darkenwaldand Merriam, 1982).

Although the need in many developing countries is the reorganization of existing models of adult education so that they will be predicated on context and culture and be equitably accessible, some countries which have exemplary systems of general education, fail to

reach segments of the adult population. The focus, in this case, turns from educational methods models to educational delivery models.

The importance of the advanced media technology as a tool for disseminating educational programming was realized in South and Southeast Asia after the much heralded and highly successful SITE program in India in the early 1960s, which proved that the media could be a useful tool in literacy campaigns (Lahiri 1981). Scheller (1983) contends that the media are useful tools for the dissemination of information and education and they should be employed more often. Although media are not widely used for adult education puposes, their potential is recognized. Distance education may also be used to supplement conventional educational systems in areas where there is a shortage of educators (Blume and Scheller 1984).

Purpose of the Study

Vision 2020 is Malaysia's goal of economic success and conceptualizes national development to be accomplished in less than three decades. The government of Malaysia is determined that the country will have an impact on world culture, economics, and politics. To achieve that goal, Malaysia has directed media and educational systems to mold public opinion and to create a consensus for national development. The purpose of this study is to examine the uses and potential uses of media technology for adult education in Malaysia. The study is exploratory and descriptive, within the context of Malaysia's national development policy, Vision 2020.

Review of the Literature

Theoretical models of national development may be divided into three categories: (a) liberal/capitalist models, (b) Marxist/socialist models, and (c) monistic/participatory models (Mowlana and Wilson 1988). Liberal/capitalist models of national development are based on the dominant Western paradigm known as Modernization. National development, in this perspective, is a linear progression from traditional society to modern society. Proponents of modernization portray the media as innovators of economic development. An assumption of the dominant paradigm has been that modernization is inherently good and will always lead to good results. However, development

that focuses on capital-intensive technology may have a negative impact on a nation, such as overcrowding of cities, pollution, and unemployment.

Marxist/socialist models of national development propose that development should be based on popular participation that is a direct result of "awareness, social change and revolution" (Mowlana and Wilson 1988). Major criticisms of the Liberal/capitalist and the Marxist/socialist development model include a growing disbelief in the media's ability to effect change directly, an overemphasis on values not consistent with developing countries' needs, and a lack of media credibility, particularly if the media are government-owned (Fair 1989; Mowlana and Wilson 1988).

Monistic/participatory models of national development stress individual participation, mass mobilization, group efficacy, and delegation of responsibility for planning at the local level (Rogers 1976). The emphasis of monistic/participatory models, which are particularly favored by researchers in Third World nations, is on cultural values and social unity; and development strategies of these models encourage individual participation and community development (Mowlana and Wilson 1988). Literacy, according to the monistic/participatory models of national development, is a stepping-stone to personal empowerment and cultural development, rather than to modernization and national economic development.

METHODOLOGY

This exploratory case study examines the uses and potential uses of media technology for adult education in Malaysia - as these concepts are being formulated and actualized in the country. The nature of the study calls for qualitative rather than quantitative methods. Across-the-board generalizations of results to other audiences - a goal of quantitative research - are not feasible, nor is generalizability the purpose of qualitative analysis (Cronbach 1975; Guba and Lincoln 1981; Lincoln 1990; and Patto 1990). In contrast to a quantitative generalizability to groups not studied, qualitative studies seek comparability and translatability of findings (Goetz and LeCompte 1984). Comparison to other groups can be achieved if the researcher defines and delineates clearly the characteristics of the group under study. Translatability refers to the explicit identification of research methods, analytical categories, and characteristics of the phenomena or group so that "comparisons can be conducted confidently and used meaningfully across groups and disciplines" (Goetz and LeCompte 1984).

Sampling Procedure

Because statistical analysis and generalizability were not goals of the study, convenience and purposive sampling techniques were prefered to those used for probabilistic sampling (Goetz and LeCompte 1984). The researcher relied heavily on contacts and government officials for permission at each phase of the study; therefore, interviewees were at times suggested by agencies and educators in Malaysia, not always at the discretion of the researcher. Because the study is an exploration of how media are used in adult education programs in Malaysia, policymakers, educational administrators, and educators were interviewed about what media are currently used in adult education programmes and potential uses of media for future adult education.

Data Collection Techniques

Three forms of data collection were used for this project: observation, interviews and archival collection of data (Merriam 1990; Patton 1990). Observations of distance learning were limited to an off-campus university program at Penang. Reportorial interviews with government officials and educationa personnel were the primary source of data. Government officials were interviewed about educational policy and the role of media in adult education. Administrators and educators were asked about mediated and/or media enhanced learning formats, administrative costs, technological advances, problems, and general concerns about adult education.

An important aspect of this study is the archival collection of data – documents, a personal journal, newspaper clippings and photographs (Goetz and LeCompte 1984; Patton 1990 Merriam 1990). Documents collected by the researcher while in Malaysia include speeches made by government officials and education/national development analysts, maps of current locations of distance learning facilities and government publications concerning the study. The researcher collected

28 news articles from two prominent English language newspapers, News Straits Times and The Star, dealing with development, education, national unity and media technology in Malaysia. Newspaper clippings from these two local newspapers show the level of interest about adult education and national development in Malaysia, along with cultural, social, and political phenomena that affect the study.

Qualitative methods are useful tools for studying a topic within the context of culture. Triangulation, the combination of several methods for gathering data, allows the researcher to cross-check data collection and "enhances the scope, density, and clarity of constructs developed during the course of the investigation" (Goetz and LeCompte 1984). Method triangulation also strengthens the validity and credibility of findings by overcoming "the problem of relying too much on any single data source or method" (Patton 1990).

Research Questions

The study addressed the following questions divided into three broad areas: literacy, media technology, and the social impact of media technology.

Basic and Functional Literacy

Is the definition of literacy rooted in the traditional modernization development paradigm where urbanization is a key aspect of development and education is a step toward national development, or is literacy considered a personal achievement that empowers the individual to develop himself or herself within his or her society? How, by whom, and for what purpose is literacy defined in Malaysia? Is there any conflict between the definition of literacy according to the government of Malaysia and that used by adult educators in Malaysia?

Media Technology

What is the role of media technology, particularly of computers and satellite transmissions in adult basic and functional literacy programs in Malaysia? How are these technologies being applied in learning situations? How do media technologies such as computers and communications satellites affect the definition(s) of literacy in

Malaysia? What are the advantages and disadvantages of using this technology? What is the primary audience for adult basic and functional literacy programmes using this technology?

Social Impact

What possible impact do these adult basic and functional literacy programmes have on personal, social, cultural and political development? Are mediated and media-enhanced basic and functional literacy programmes reaching previously inaccessible audiences, such as women, particularly those in rural areas? How do Malaysians incorporate educational training in their every-day lives?

RESULTS OF THE STUDY

Not many countries place such importance on the educational system as does Malaysia, which expects education to initiate radical personal and social change, nation-building and even cultural unity. The national education system in Malaysia has sought to unite the peoples of three distinct races, cultures, and religions under a common banner of national unity, to erase communalism, and to forge nationalism. Government officials have determined the role of education in national development to be more than just influential, but to be a change agent.

Literacy and Functional Competency

Literacy in Malaysia is defined by a majority of those interviewed as the ability to read and write, and education is a vehicle for national development. In general, government officials avoided giving direct definitions of literacy, most claiming adult literacy was not under their jurisdiction while others citing national and international publications as references for adult literacy in Malaysia. However, there is a distinct difference between the focus and definition of literacy among various ministries in Malaysia, with the Ministries of Education and Information equating literacy with schooling and the Ministry of National and Rural Development correlating literacy with functional qualities of literacy. The variances among officials are attributable to the clientele they Although there was a reluctance by those government officials interviewed to verbally discuss a precise definition of literacy, particularly adult literacy, the unwillingness did not seem to be due to a negative attitude toward the subject. One official at the Ministry of Education praised the educational system for superb enrolment percentages – 99 percent in the primary level and 80 percent in the secondary level in Peninsular Malaysia. He equated literacy with basic reading and writing skills learned in school, and said the "purpose of schooling is to produce self-sufficient individuals" (Interview, Jan. 28, 1992).

The education of these individuals for the purpose of national economic growth is warranted by Malaysia's overall development schematic:

Education's role in development is providing economic skills to be able to survive. . . . Education's importance in development is manpower. Therefore, the curriculum focuses more heavily on vocational studies, on applied rather than pure science. The curriculum is designed to fit employers' needs (Interview, Jan. 28, 1992).

Clearly, the motivation for national development is economic, reminiscent of the Modernization paradigm, with individuals regarded as an economic resource in a top-down development strategy. This government official's remarks reflect the purpose of formal schooling which is more predominant in urban, industrialized areas than in rural, communal kampungs.

Mr. Hoesne B. Hussein, Deputy-Director General of the Ministry of Community and Rural Development (KEMAS), also the resource person from Malaysia to UNESCO, authored "The Impact of Functional Literacy on Human Resource Development," perhaps the most definitive outline of adult functional literacy in Malaysia. His concept of literacy is applied in rural, less developed areas of the country in which formal schooling has less impact than in urban, industrialized areas.

In trying to explain functional literacy, it is best to start with literacy as a concept. Literacy is generally taken to mean the ability to read, write and apply numeracy skills. A person is considered literate when he or she has sufficient reading, writing and numeracy skills to continue to learn alone without the continuing guidance of a teacher. The word functional on the other hand denotes the ability to function or being in possession of a certain skill to perform. Thus the concept "Functional Literacy" is used to show the ability to apply reading, writing and numeracy skills in a socio-economic situation required by a given environment (Hoesne, 1991,).

Literacy in Malaysia is officially defined by the Ministry of Education, but the Ministry of National and Rural Development is pivotal in deciding the application of that definition in rural and inaccessible areas of the country. Literacy, as defined by the Ministry of Education, consists of basic reading and writing skills that are learned in the formal educational system determined by a central government. But the Ministry of National and Rural Development adds a functional component to this definition of literacy, teaching agriculture, health, home economics, and leadership skills. The purpose of education, whether formal or nonformal, is to develop human resources and to solidify national unity - as both are priorities of economic development.

Educators were much more vocal than government representatives about their definition of literacy and the role of adult education in Malaysia. Most agreed that literacy can be defined as basic reading and writing skills learned in the formal school system and considered education a vital link to national development of Malaysia. Literacy was generally defined in interviews with adult educators and education administrators in both rural and urban settings as the ability to read and to write, with those in rural areas adding a functional capacity to the definition. At the time of the study, there were no adult basic literacy courses being taught within the formal education system of Malaysia.

Adult basic education courses were taught in Malaysia in the 1950s and 1960s, but a lecturer at Universiti Malaya, says "adult education programs are very *ad hoc*, and there is nothing on a continu-

ing basis" (Interview, Jan. 16, 1992). KEMAS, she adds, does teach income-generating skills, particularly for women interested in entering cottage industries, but there is no consistent adult basic education program in Malaysia (Interview, Jan. 16, 1992).

In the urban context then, literacy in Malaysia is a by-product of schooling and can be equated with reading and writing skills, and should be considered an effective element of national development. Because literacy is considered to be achieved through schooling, literacy rates therefore conform to school enrolment rates – but there is a small contingent of educators, lay persons, even government officials who define literacy within a more holistic framework of education and national development.

An administrator at Universiti Sains Malaysia's Centre for Off-Campus Studies, agrees that the purpose and role of education is to foster and maintain development. "We [Centre for Off-Campus Studies] are specifically trying to upgrade a specific group of the population so they can contribute to development of the nation" (Interview, Feb. 1 1992).

Social organizations in Malaysia arrange much of the nonformal adult education activities, most of which do not include basic literacy skills of reading and writing. These organizations receive no government support and, for the most part, are managed by women who want to address social injustices and inequalities that correlate to poverty, gender and ethnicity (Interview, Jan. 23 1992).

There is no conflict as such between government officials and adult educators concerning the definition of literacy used in the formal education system. However, Self-development models of education are gaining recognition in Malaysia, particularly in the nonformal sector of education. Some educators and government officials express a desire to incorporate various learning models such as lifelong learning and/or adult functional competency programmes.

Micro-level development, particularly of the educational needs of rural groups, is becoming more popular among government agencies, such as those affiliated with UNESCO. Also, private organizations provide adults with nonformal educational opportunities.

Media Technology

Advanced media technology plays a minimal role in the current adult basic and functional literacy training programmes in Malaysia, partially because adult basic education has not been approached in a systematic manner. Communication satellites do provide distance education throughout Malaysia at the tertiary level of formal education, but there is no definitive use of this technology for nonformal adult education. Computers are used infrequently for nonformal educational activities, but usually in planning and teacher training, or for publishing in-house publications, but they are not used directly in the learning experience. Media most frequently used for formal educational programming are television and radio - to which adults have access, with video being an effective supplemental tool in the nonformal sector, where adults are the target audience.

Some adult educators are reviewing the feasibility of implementing advanced media technology in nonformal adult education. Although educators are divided on the usefulness of media technology in adult education, the government of Malaysia has determined the broadcast media, particularly television, to be pivotal to education and development. "The role of media," says a government official in the Ministry of Information, "is to inform, to educate, to mold public opinion, to entertain" (Interview, Jan. 29 1992).

Government-operated television channels TV1 and TV2 of Radio-Television Malaysia allotted an average of 37 percent of their total programming in 1990 to various educational shows. Most of the programming targets primary and secondary level schoolchildren and complements their classwork. Radio channels allot considerably less time to educational programming, with a concentration on health and home awareness. No broadcasting time had been allotted to basic literacy skills (Interview, Jan. 29 1992).

One of the most advanced uses of media technology in adult education is the Centre for Off-Campus Studies at the Universiti Sains Malaysia, a distance learning facility in Penang supported financially by tuition and government funding. But this distance learning facility operates only for those adults in formal schooling at the tertiary level. Integrated Systems Digital Network (ISDN)

provides video conferencing without satellites to 13 regional study centers, with at least one for each state. Established in 1971 and funded partially by the Ministry of Education, the Centre has one main advantage over on-campus learning: cost. An administrator at the Centre says electronic media are less expensive than most printed materials, so reduced expenses are passed to the student (Interview a, Feb. 1 1992). On-campus tuition in 1992 was about M\$1,004 per academic session, whereas off-campus students paid M\$800. But the biggest disadvantage, she says, is also cost: the Centre cannot afford equipment needed to expand the program and some courses must meet on campus during the semester break. Meanwhile, the Centre is working with the Ministry of Education toward the establishment of an "Open University" for the Malaysian populace (Interview a, Feb. 1 1992).

Another admininistrator at the Centre agrees that the program is moving toward using media to help educate the general population. He expects the Centre to utilize media technology such as teleconferencing in its involvement in continuing education programmes, such as those for small business owners. For the past few years, these programmes have been dependent on correspondence courses, but this type of programme lacks interaction (Interview b, Feb. 1 1992).

Although advanced media technology such as satellite teleconferencing is available to Malaysian adult educators, most see little need for its use outside the formal education system. Because there is no systematic adult literacy programme in Malaysia, the concept of distance learning technology cannot be applied to the general population for literacy training and its level of usefulness cannot be determined.

Social Impact

Sociocultural development is a primary objective in Malaysia, with the needs of society paramount to those of the individual. The role of adult basic and functional literacy courses is to ensure smooth and rapid economic development in rural or remote areas of the country without drastically affecting cultural distinctions among the ethnic groups in Malaysia. Human resource development in Malaysia is the preparation of individuals through education and training, to be productive

and economically independent, thereby contributes to the overall economic development of the nation.

Malaysia has been successful at sustaining a consistent and remarkably high level of economic growth while maintaining a low rate of inflation. World Bank figures place Malaysia's per capita GNP growth rate at a four percent average between 1965 and 1989; in terms of growth, it ranks Malaysia 11th out of 124 countries. Exports of goods and services grew by 9.2 percent per annum in the last decade. Malaysia is looking toward greater industrialization and toward entering new international trade markets (Salmah and Rathi 1992).

Development of Malaysia as a political entity is ascribed to successful national unity and nationalism campaigns promoted by the media, particularly the broadcast and print news media services and adult educational programming. Media saturation of these objectives provides the populace with a political awareness of their own country as a democratic nation that affords the individual the right to vote, to make choices and/or changes in government. Mediated adult literacy programmes are not being incorporated in the education system at this point in time, but media-enhanced adult functional competency programmes are popular and are reaching remote audiences. Broadcast media support the government's education policies of promoting family values, agricultural and home economics skills, and health and hygiene awareness, particularly among rural women. These women are targeted by the Malaysian government for topical broadcast educational programming, and local radio stations provide ethnic-oriented programming.

Adults assimilate educational training in two ways: their political and social ideologies are strengthened and their skills are enhanced. Both are equally-important goals of the Malaysian government. The government of Malaysia has incorporated strategies for national development into all phases of education, and adults participating in educational programmes are exposed to cultural and socio-political propaganda intended to garner public support for the national development policy, *Vision 2020*. Family values, religious tolerance, national unity, nationalism – the government of Malaysia entrusts the media and the educational systems with delivering these substan-

tive and consequential elements of national development to the people of Malaysia. Much of the adult educational training is nonformal, with the media responsible for supporting the government's development and national unity policies through news and entertainment. These policies are reiterated in television and radio broadcasts, billboards, posters, newspaper articles, formal education settings, and business dealings.

Opportunities for development of new skills and sharpening of others are other products of adult education training. Rural housewives listen to the radio or watch television and learn how to purify water; farmers scan printouts of satellite mappings and decide the condition of their land; the urban elderly watch religious programming on television and others receive religious instruction using videotape; workers take part-time courses using distance learning facilities; young workers enhance their career opportunities through computer training. All these opportunities would not have been possible without media.

Analysis of Results within a National Development Paradigm

Vision 2020, as a blueprint for national development in Malaysia, is a modern execution of a neo-Modernization paradigm in which economic success is the barometer for national development. Although the national development plan of Malaysia is rooted mostly in the Modernization paradigm, it is evident that the government of Malaysia has incorporated some tenets of the Self-development/Participatory paradigm. Malaysia has incorporated tenets of the Self-development/Participatory models of development into a mostly Modernization paradigm, discerning for itself the best characteristics of each model and creating a development framework that combines Participatory and Modernization principles into a neo-Modernization model of national development. This model serves the country's economic development needs and, at the same time, strives to protect cultural distinction and promote cultural harmony. The major tenets of Modernization (democratization, urbanization, education, and industrialization) are incorporated in Malaysia's Vision 2020.

Macro-level development is practised by the government of Malaysia, with centralized planning

by the government, plus enforcement of government policy through top-down communication channels. The government chooses the desirable form of national development, formulates and implements development policies, and reinforces the strength of those policies with government regulations.

Media's role in the Modernization paradigm is to prepare the people for economic development and "nation-ness," a self-recognition of the country's nation status among other nations. Malaysia has entered the realm of international economics and boasts of its accomplishments as a developing nation. As innovators of economic development in Malaysia, the role of media in national development is to mold public opinion concerning government economic policy and to foster pride in Malaysia's economic capabilities. Malaysia's media system, as a voice of the government, affirms these values in programming, content and advertising – a characteristic of the Participatory model of development.

Human resource development is integral to overall national development in Malaysia. Individuals are educated and trained for the work force to provide the country with sufficient and productive labor, providing Malaysia with a rudimentary base for economic success. But culture may be a more dynamic factor than paradigmatic concepts in Malaysia's promoting the good of the country rather than of the individual.

Malaysia recognizes that development of its own resources, rather than a dependence on other nations, is crucial to its national development. In the past, Malaysia had concentrated on tin and rubber production, but those international markets are declining. The country is now moving toward a more diversified industrialized society. Malaysia now manufactures items ranging from the Proton SAGA, the country's contribution to the automobile industry sold mostly in Malaysia, to computer chips sold around the world. To fully equalize economic development around the country - not just in urban pockets of industrialization - Malaysia is focusing on the construction of an adequate infrastructure: roads, electricity supply, clean water and school facilities. Trying to rejuvenate the existing infrastructure put in place by the British during colonization, Malaysia desires to connect rural and urban areas, East and

West Malaysia, communal groups and cities to allow everyone to participate in Vision 2020.

Though Modernization has its detractors, many of the key tenets of the dominant paradigm have proved to be successful in Malaysia. The national economy of Malaysia is growing more rapidly than those of many industrialized countries, and Vision 2020 is as popular with the Malaysian populace as it is with the government. But in Malaysia the dominant paradigm has evolved to address the criticisms leveled by advocates of Self-development. This neo-Modernization model of national development retains an economic focus, but incorporates cultural and social concerns as primary, rather than secondary, issues of development. By offering a holistic view of national development, one that takes into consideration the synergistic effect of personal, social, cultural and political dynamics, the paradigm has become more realistic and plausible.

Criticisms leveled at the Modernization paradigm - other than its narrow economic focus - have been dealt with in a neo-Modernization application of the dominant model of national development in Malaysia. First, the concept of ethnocentric intellectualism in which the developing country takes a priori blame for its economic status is replaced by the concept of cultural imperialism in which developed countries perpetuate underdevelopment to protect their own economic superiority. Second, economic aid is not accepted indiscriminately from developed countries, thus avoiding economic dependence on those countries. Instead, Malaysia has fostered strong international trade agreements, developed its own natural resources, and revised its industry and agriculture to compete in the world economy.

This neo-Modernization model addresses not only the criticisms of other national development paradigms, but strengthens the validity of some traditional tenets of the dominant paradigm. A primary doctrine of Modernization is that media exposure is an effective attitudinal and behavioral change agent that prepares the country and the people for national development. No cause-and-effect relationship between media and development can be established, but the media have proved to be an effective variable in *Vision 2020*, constantly highlighting government policy and development concepts of national unity and nationalism. Another key tenet of Modernization,

emphasis on macro-level development policy and centralized planning by the national government, is useful in a society threatened by ethnic diversity and cultural differences. Rather than undo these distinctions, the national government focuses on awareness and acceptance of diversity, promoting the good of the country over the good of the group or individual. If the emphasis was instead on micro-level development, the government would risk the loss of unity to communalism.

The Self-development paradigm has failed to topple Modernization. However, one aspect of Modernization that is not realized in Malaysia's development policy is literacy training. Vision 2020 commends education and training for their role in human resource development, but the government relies on the formal educational system to provide for all basic literacy training. The dominant paradigm recognizes the need for basic skills to support a productive and qualified workforce, but the concept of systematic adult basic literacy education is overlooked in favor of formal education. Developing countries have had to choose from antithetical models of national development. But models are ideal types that rarely function according to expectation. Malaysia has modified the Modernization model to fit its unique needs and wants.

IMPLICATIONS OF THE FINDINGS

The overriding question raised by this study is not "Can these technologies be used in Malaysia?" but "Should these technologies be used in Malaysia?" The government and adult educators of Malaysia must consider not only the advantages, but also two disadvantages of advanced media technology as an adult education delivery system before implementing satellite link-ups and computers. First, the country would have to be willing to invest money in hardware throughout the country, not just in urban areas, if the goal is to equalize educational opportunities. Second, these technologies would require an effective infrastructure for power supply, particularly in rural areas, to improve telephone and electricity availability.

The implications for both media and education, particularly for the potential use of media technology in adult education, are phenomenal and worthy of consideration within the Vision 2020 context. The foremost question is: "Would the implementation of media technology in adult education enhance the national development policy of Malaysia?" That question will be addressed within two contexts: implications for adult education teachers and administrators and implications for adult education policymakers.

Implications for Educators and Administrators

The history of education policy in Malaysia illustrates its perceived power as a change agent in personal, social and political issues. The curriculum of the national schools of Malaysia was implemented to eradicate communalism and social distance among various ethnic and religious groups by changing the attitudes of individuals. Adults were to be re-educated toward this same goal, with the emphasis of nonformal adult education focusing on productivity, entrepreneurship and democratic principles. Most academicians view media technology as a potential tool for reaching audiences otherwise not accessible by traditional methods. If Malaysia should choose to adopt mediated or media-enhanced adult education strategies, the possible implications for adult educators and administrators are:

- Educators and administrators would need to conduct a comprehensive review of the expected functions of adult education in Malaysia. Included in that review should be an examination of how adult education, whether literacy or functional competency training, affects the individual, his or her family, and society. If Malaysia is going to pursue a lifelong learning strategy, then the major thrust of adult education might be refocused from its impact on society to its impact on the individual, keeping in mind that adults who learn are more likely to encourage children and other family members to be involved actively in learning; children of literate adults do better academically than do children of illiterate adults.
- Adult education formats need to be reviewed and aligned with expected functions of adult education. Format changes will most likely involve more than determining technology input. Flexible time schedules and facilities

- will be necessary to meet the needs of working adults, inaccessible rural adults, women (particularly those with small children at home) and handicapped adults. Other format changes might include revamping lesson plans to meet the needs of the adults in the context of the learning process. Rural adults will want more information on agriculture and health than their urban counterparts; urban adults might need basic reading and writing skills and computer training.
- 3. Adult educators and administrators will experience changes in preparation for planning and teaching according to new technology-enhanced formats. Careful research and review of budget restraints, coupled with exploration of clients' needs, should be conducted before implementing technology. Educators must familiarize themselves with the technology they are expected to use, and the technology their colleagues are using. They must also realize that technology is a potential tool and tutor for adult education, but technology is merely a channel for delivering education.
- 4. Once certain forms of technology are chosen for specific adult learning formats, administrators and educators need to prepare for changes in delivery systems and adapt lesson plans accordingly. Educators need to consider their audience, their learning needs, and the resources available to meet those needs; only technology that is determined to best fit those three considerations should be implemented. Examples of delivery systems include satellite transmissions, television and radio broadcasts, videotapes, audiocassettes, and computer networking. Each may be used independently or in conjunction with the others.
- 5. Once in place, media technology is capable of allowing educators in Malaysia to communicate via a computer network, to examine lesson plans of colleagues placed in a central database, to hold video conferences of viable teaching methods, to compare and contrast media-enhanced adult programmes in East Malaysia with those in West Malaysia. Perhaps the most relevant outgrowth of utilizing a centralized network and database system is the increased ability to systematically collect and analyze data pertaining to adult education in

Malaysia. Malaysian educators and administrators would be better able to conduct research in a field considered important to national development.

IMPLICATIONS FOR POLICYMAKERS

Government officials in Malaysia deal not only with questions of how to implement media technology in adult learning situations, but also with the overriding question of whether media technology should be used in providing adult basic and functional literacy courses. The goal of policymakers is to determine whether media technology advances the national development policy, *Vision 2020.* If the government of Malaysia chooses to incorporate media technology for that purpose, the implications for policymakers are:

- 1. Current attitudes concerning the role of the individual in the learning process, in the national development plan, will need to be reviewed. Distance education via media technology is a monetary investment in the education of adults who, without these new formats, might not have access to adult basic and functional literacy programmes. Policymakers should consider the impact of education on the individual and the impact of that newlyeducated adult on society, particularly in the context of national development. Lifelong learning begins with access to education which should to equal to all ethnic groups, women, and rural adults. Policymakers must first decide the value of educating the individual in a culture that emphasizes the good of the group over the good of the individual, and take into accout the direct and indirect benefits to society by educating adults using media technology.
- 2. Once policymakers have determined that media technology in adult education programmes have a positive impact on the national development policy of Malaysia, they should determine the impact these technology would have on society. The most conspicuous impact on society is a better educated workforce, but at a heavy financial cost. Satellites, computers, hardware, and software have proven cost efficient in the long run, but the initial expenses incurred in im-

- plementing technologies in any learning situation may prove prohibitive. Because the set up costs are high, the first reaction may be to implement the technologies only in areas with adequate infrastructure to support them. Such an approach would negate the original purpose of the technologies which is to equalize educational opportunities among all Malaysians.
- Perhaps the most important issue that policymakers will deal with concerning the issue of media technology in adult education is policy itself. Malaysia is a developing country looking forward to full economic development by the year 2020; current policies reflect a nation-building attitude, particularly those policies regarding human resource development for the purpose of strengthening the workforce. But as Malaysia matures into a fully-developed country, those policies should evolve to reflect the role of individuals in maintaining that status. Four policy content areas need to be reviewed within the framework of full development: (a) focus and functions of adult education, (b) national adult literacy policy, (c) national standards for adult education formats, and (d) funding for research and adult education programs. As it stands, adult education in Malaysia exists mostly to supplement formal education. However, not everyone has equal access to formal education. They include drop-outs who have little recourse to completing their education, women at home with small children, rural adults, and handicapped individuals. However, should policymakers review the functions of adult education within a lifelong learning context, the focus of adult education would include adults who want access to formal and nonformal learning activities outside the existing formal education system. To regulate these activities fairly and consistently, policymakers may choose to adopt a national adult literacy policy so that adult educators and administrators can follow national guidelines. These guidelines could be part of a revised national standard for adult education in Malaysia, taking into consideration the role, if any, of media technology.

CONCLUSION

Malaysia is proving itself a nation among nations in a technologically-advanced world, and is adapting to that technology in government, business and formal education systems. Media and education, two arms of the Malaysian national government linked together for the dual purpose of strength and unity, propagate the government's development policy, *Vision 2020*. But as Malaysia stands at the crossroads of development, it must choose either to continue with a formal education system that excludes access to many adults, or it may choose to forge a national policy regarding adult literacy and the role that adult education plays in national development.

As for now, adult basic education is not a priority in Malaysia, but there are diverse nonformal educational opportunities for adults, many of them mediated. Literacy in Malaysia is defined as the ability to read and write and is often equated with schooling. Government officials recognize the importance of education to national development, and KEMAS is actively engaged in functional literacy activities for adults in rural Malaysia. Although Malaysia is technologically-advanced and has distance education capabilities, media technology plays a minor role in adult education activities. Malaysian adults have access to nonformal mediated educational opportunities, but the distance education facilities are reserved for university use.

The findings of this study suggest further research concerning the potential use of media technology in adult basic and functional literacy programs in Malaysia. Further research must answer this question: "How does media technology affect disparities in educational opportunities?" In other words, would distance learning formats for adult basic and functional literacy programs actually provide equal access to learning? Further research should concentrate also on the diffusion of technology in Malaysia: "Is technology use innovative and equitable, or is technology applied only in urban areas for specific groups of people?"

Malaysia, though still defined as a developing country, endeavors to outgrow this current definition. It is an aggressively progressive nation in business and politics, but conventional in social and cultural values. Cities flaunt industrialization and urbanization; villages hold steadfastly to customs and rituals. Malaysia has conceptualized and formulated a development plan that fits the needs of their country and their cultures, taking principle elements from the Modernization paradigm and combining them with several elements of the Self-development/participatory model. While the role of *Vision 2020* is to protect cultural diversity during national development, the role of education is to promote understanding of that diversity. The next step, then, is to define the role of media technology in national development in protecting and promoting these diverse Malaysian cultures through adult education.

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