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VIEWS OF STATION'S DIRECTORS

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AN EXAMINATION OF EDUCATIONAL RADIO: VIEWS OF STATION'S DIRECTORS

By

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ABSTRACT

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By

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In a world of highly sophisticated communications technologies, the emphasis is placed on those machines with the greatest speed, longest reach and widest possible audience. There is little, if any discussion about the familiar and effective use of older means of communication to spread information and to educate large groups of people. Radio is not seen in the Western World as a means of education as well as information. Today, the world of education is heavily dominated by computer-based technology in the industrialized world, although radio remains a very important part of the educational landscape in developing countries.

This study explored the attitudes and practices of five radio station directors who offer some form of educational programming as part of their station's broadcasting. Qualitative telephone interviews were used to collect their thoughts and experiences on educational radio.

Results from the interviews revealed four themes common to all educational radio. These themes were: understanding the radio listener as an adult learner, the dynamic balance between programming and funding, balancing education with listener interest and the importance of listener assessment. The four themes were analyzed in relationship to theories on adult nonformal education. Recommendations were made for more effective radio education in the future.

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CHAPTER ONE

INTRODUCTION

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Educating a population is a daily, never-ending task of any country or group of people within a country. As the world becomes more complicated and the rate of change exponentially increases, each country, whether industrialized or agrarian, is attempting to bring the necessary education for their citizens to survive and thrive. Some of that education will occur in formal classrooms with textbooks and traditional study. However, much of the information needed or desired will be transmitted in situations that can be described as nonformal, or outside the traditional, institutional setting.

Of what is nonformal education composed? Ted Ward (1984) describes nonformal education as that which helps people discover their own worth and the potentialities for seeking a better life. In most cases it is concerned with the human being learning tasks associated with a particular program of social change. Bhola (1979) states that nonformal education relates to the lives of people as they are living today, dealing with problems they are already in the midst of, inventing solutions they can do something with. He says that by temper, nonformal education is often radical, humanist and egalitarian, open-ended, authentic and participative. As such, programs that would normally be under the category of, and taught in, formal instructional settings, such as reading and math, can fall into the realm of nonformal education when initiated under the auspices of voluntary participation by the learners, with a strong humanist orientation by the program planners.

Nonformal education is usually focused on adult learners in a particular setting, and is distinguished from formal education more by function than by form. Many of the methodologies of nonformal education are also used in formal education (Ward, 1984). Therefore, when a large group of adults learns a skill, such as reading via television or radio, or new ideas about agriculture or health from an extension agent, both would qualify for the label of nonformal education.

Television, radio, the Internet, the extension agent, can all provide information that changes people's lives. What is the difference between conveying information and nonformal education? The difference lies in the intention of the planners behind the programs and the attitude of those whom they seek to educate. According to one analysis of educational planning, programs with an educational intent have been undertaken in terms of some period which the mind abstracts for analytical purposes from complicated reality. The planning may be undertaken by an educator, a learner, an independent analyst, or a combination of the three (Houle, 1972). It is not, however, undertaken by an advertising agency, a government or even a community member, with the intention of disseminating information to an unsuspecting audience. Within the design of the program intended for education, the planners, in response to the relevant context in which they intend to operate, set goals and objectives, plan the evaluation of process and outcomes, formulate the instructional design, and designate learning procedures (Levine, 2002). In most educational programs, the intention is to produce a behavioral change, which has been analyzed as necessary to the growth of the learners, and to be able to measure in some way whether the change has occurred. Pearce (1998) states that

educational planning must have objectives (tasks), inputs (resources), process (methods) and outputs (results).

The nonformal education of countless people today takes place through the use of various electronic mediums. Only one electronic communications medium has become both an ordinary and pervasive presence throughout the developed world and penetrated into the remotest rural areas of the poorest countries. That is radio (Buckley, 2000).

If education outside the formal classroom is to be a vital part of the entire educational picture, then one has to determine the significance and effectiveness of radio education as a big part of that picture. Both in the more modernized and in the less-developed world, radio education is a vital part of the empowerment and liberalization of many groups of people, often those on the margins or without easy access to other forms of communication (Jamison and McAnany, 1978). From the hills of Appalachia to North Dakota Indian Reservations to subsistence farmers in Mozambique to nomadic herders in Mongolia, radio is providing easy access to citizen participation in government life through village educational forums and coordinating texts, building communities by access to information on economic and political issues and fostering more civil societies, all at a reasonable cost (Siemering, 2000).

Because education by radio is competing with other forms of education for government and nonprofit dollars to fulfill its mission, it has to show itself as a cost-efficient, effective and meaningful form of nonformal education wherever it operates. This study examines a number of groups that operate or monitor educational radio, both in the United States and abroad. The intent is to determine similarities and differences in their operations and isolate those practices, philosophies and circumstances that lead to

successful education through the medium of radio broadcasting and which could be imitated by others planning to expand educational opportunities through radio.

Statement of Problem

There are hundreds of radio stations and programs that have emerged in recent decades to satisfy the educational needs that exist outside the traditional classroom. Emerging democracies from Russia to South Africa have seen a remarkable growth in radio programs whose purpose is to bring information and education to the most isolated areas of their countries. For those radio stations which purport to educate, there is very little research on the connection between their philosophy and practice and the effectiveness of their educational work. Because of the emphasis placed on education through computer-based technology and two-way television in the technological world, education through radio has been largely ignored and under-researched in the broader community. As a tool of nonformal adult education, radio needs to be brought to the front of the discussion of mass education through technology.

Purpose of Study

The purpose of this study is to gather first-hand information about educational radio. It will attempt to determine the mission, philosophy, practice and outcomes of five diverse programming initiatives. It uses theories of adult education as stated by Houle, Knowles and others. These could be summarized as understanding that the adult learner needs to be respected for his experience, knowledge and independence. He/she is looking for answers to immediate issues or problems in life and the facilitator needs to have a

clear understanding of the learner's needs and outlook and recognizes his/her need to be self-directing.

Using theories of adult education and program evaluation, this study attempts to align the reality of five educational radio initiatives with what is taught about adult education and radio as a means of nonformal education. Subsequently, the material is used to make recommendations for radio programmers or researchers who intend to use radio as a nonformal educational medium.

Specific Areas of Inquiry/Investigation

1. Understanding the background and setting of the radio station, including funding sources, government support or restrictions, makeup of staff and other personnel and the initial purpose.

2. Determining the programmer's perspective on, and strategies for, gathering feedback from the targeted populations they seek to serve.

3. Determining how the success of a program(s) is measured and analyzed and how future goals are decided based on those measurements.

4. Determining how closely the radio programmer's apparent philosophy and practice follows the theories of nonformal education and those of adult learning.

Definition of Terms

Adult Learner- An adult who is seeking education for one of three reasons: as a goal, as an activity or for the act of learning (Houle, 1972). Adults are motivated to learn as they experience needs and interests that learning will satisfy (coming from a sense of immediacy), adults' orientation to learning is life-centered, experience is the richest resource for their learning and adults have a deep need to be self-directing (Knowles, 1970).

Andragogy-The art of helping adults learn (Knowles, 1970).

Community Radio-Not looking for profit, seeking to provide service to the civil society to influence public opinion, create consensus, strengthen democracy and above all create a community (Buckley, 2000). Run, owned and controlled by community organization for their own communities and funded from sources such as grants, sponsorships, donations and advertising (Mtimde, 2000).

Focus Groups-Used in qualitative research to identify themes emerging from group discussion around open-ended questions. Discussion responses from the focus groups are summarized and assessed for content analysis (Havercamp, 1998).

Formative Research -Various forms of surveys or questionnaires used to reflect various competencies, attitudes and beliefs of a target audience (similar to an informal needs assessment) (Pearce, 1998).

Nonformal Education-Nontraditional education that helps people discover their own worth and the potentialities for seeking a better life and in most cases is concerned with the human being learning tasks associated with a particular program of social change (Ward, 1984).

Public Broadcasting-Radio programming which is operated by a statutory body, catering to the general public, providing education, information and entertainment (Mtimde, 2000).

Assumptions

This study focuses on educational radio broadcast from stations that vary in size, funding and orientation. Two assumptions are made. First, that the directors were truthful in their responses to the researcher. Second, that the interviewees were able to coherently assess and describe the character of the educational endeavors within their specific organization.

Limitations of Study

A convenience sample was used in this study. Therefore, the respondents were not necessarily representatives of a targeted population, and care must be taken when trying to apply these findings in other situations. Also, because this sample was chosen

primarily from listings of Internet search engine results, those organizations that do not have a website were not typically included in the study, except for one recommended by a previous contact.

The study is not focused on one type of educational programming such as literacy or language acquisition (two common orientations of educational radio) The responses and the suggestions may therefore be applied only in a generalized sense to educational radio, and are not meant to be applied to any particular programming.

The participants had varying degrees of commitment to education, as opposed to entertainment, news or business survival. Their thoughts on education must be weighed according to their level of concern for education.

As the variables among the five stations are high and not measured quantitatively, the information gathered from them is analyzed qualitatively according to themes that the researcher considered appropriate regarding nonformal adult education.

This chapter has set the stage for the study. Chapter two discusses the literature available on the topic of educational radio and nonformal education and the methodology used for this study. Chapter three provides the methodology used in the study. Chapter four presents results of this study. Chapter five discusses the conclusions and recommendations drawn from the results.

CHAPTER TWO

LITERATURE REVIEW

This chapter explores the current literature available on the recent history of educational radio, and the theories and practices behind it. It also includes information on nonformal education and how our understanding of nonformal education impacts program planning for educational radio.

Radio and Education: A Short History

In the industrialized world, communications technology has long been used to serve the needs of education. By the late 1920s, a number of educational institutions in Europe, America, and elsewhere were making extensive use of radio (Jamison and McAnany, 1978) As technology advanced, radio as an educational tool became obsolete in the modern world, but remained and continues to be the most important medium of education in the developing world, with no close competitor (Katz and Wedell, 1977; Buckley, 2000; Walker and Dhanarajan, 2002).

The coming of television shifted interest away from radio, but then costs, outreach and equity stimulated a renascence of interest in radio for education during the 1960s and 1970s (Jamison and Mc Anany, 1978 From the late 1980s until today, when western dollars are allocated towards an educational technology, it is usually the computer (World Bank Report on Education, 2001). The Internet is the technology most heralded as a means of developing open government and electronic democracy. According to the last report of the US National Telecommunications and Information Administration (1999),

the Internet itself is contributing to the widening of knowledge gaps between elite groups and those who face social and economic exclusion. It is radio that remains, today, the world's most pervasive and accessible electronic medium, and as such, it potentially offers a bridge between the vast knowledge resources available through the Internet and the millions of people who have access to no other means of electronic communication (Buckley, 2002; World Bank, 2001; Walker and Dhanarajan, 2002).

For mass education, radio has shown itself to be effective for inservice teacher training and instruction of English in Uganda, health education and political awareness in Tanzania and for social studies and science in Zambia (Intelecon Research and Consultancy, 1993). As a tool of nonformal education, radio has been documented to be very effective in meeting educational goals in many developing countries. Two studies comparing academic achievement of adult education programs in traditional classrooms with those learning by radio found the mean score at two different grade levels of the radiophonic students to be twelve and sixteen points higher than the conventional students (Jamison, 1978).

In spite of radio's early success, as early as 1983 Bates wrote:

> "The question arises why there is a trend away from broadcasting, especially seen in the light of the role educational radio and TV can play in supplying the distance education need. The contribution of educational radio and television must be examined more closely with regard to distance education." (Bates in Halberg, 1983:227).

Bates' lament was echoed by Tony Dodds (1996) who saw a serious lack of information on distance education technology in the developing world and its relation to

nonformal adult education. Dodds stated that most nonformal education projects, which were largely radio broadcast, were poorly documented and practitioners couldn't teach each other about their mistakes. Bates (1983) surmised that many of the academics involved with instruction through radio were not trained in their use and that there was a lack of educational theory available in this area. In spite of the increase in audio-visual media available for distance education, the tools were under-exploited in distance education systems (Bates in Halberg, 1983 as cited in Marce, 1987).

The modern world, since the 1980s, has had its heart and mind set on distance education using computers and has evidenced little will towards improving radio education. That perspective does not take into account the realities of life for the majority of the world's people.

Perspectives on Radio in the Developing World

In the developing or "under-developed" world, the vast majority of people are without basic amenities such as clean water and sanitation systems, and are often illiterate or functionally illiterate. In Cambodia the average male has 7.9 years of schooling, 30% of the population has clean drinking water and 17% has access to any proper sanitation. In Ethiopia, the average male has 5.3 years of schooling, 24% of the population has access to clean water and 12% has proper sanitation (United Nations Statistics (2003) Retrieved February, 2003, from http://unstats.un.org/unsd/demographic/social/default.htm). In these developing countries, keeping pace with technology is not the primary focus, and access to educational technology is for the privileged few. Buckley (2000) states that television is a mass medium only in the most developed countries. Computers and the Internet are not

accessible to most of the world's poor and the information revolution has widened the division between the information haves and the have-nots.

The majority of people in developing countries live in rural areas; in Africa 80 percent of the 600 million inhabitants live outside the cities (World Bank Group Report, 2001), with no access to electricity, telephone and computers. There are more telephones in Tokyo than in the whole of sub-Saharan Africa (Buckley, 2000). In Sri Lanka, one person in 500 has access to the Internet, but virtually everyone has access to radio (Girard, 1999 as cited by Walker and Dhanarajan, 2002). Bolivia had fewer than five telephone lines per hundred people in 1996, but more than 57 radio receivers per hundred (ibid). Less than 2% of the population of Africa has telephones, yet in the entire developing world there are more than 800 million radios (Buckley, 2000).

Only one electronic medium has become both an ordinary and pervasive presence throughout both the developed world and penetrated into the remotest rural areas of the poorest countries. That is radio (Buckley, 2000; Walker and Dhanarajan, 2002).

As a technology, radio is unique in its accessibility and affordability (Radio for Literacy, 1985). With the advent of Trevor Baylis's wind-up radio, Freeplay, and the subsequent manufacture of the Freeplay by the Baygen company in South Africa, radios are now being made available to the most remote communities (Hartley, 2000).

In countries where a large percentage of the population is illiterate, a radio listener can participate as a learner in the process of communication without extensive instruction and preparation (Radio for Literacy, 1985). Unlike television and computers, radio education can be done at a reasonable cost (Radio for Literacy, 1985; Walker and Dhanarajan, 2002).

In educating large groups of people, the issue of linguistic diversity is common. This is where radio, as compared to television, is at its strongest. Radio is capable of meeting local language needs at low cost (Katz and Wedell, 1977). Broadcasters recognize that broadcasts in local languages are a good means of mobilizing participation in socioeconomic development (ibid). In countries fighting poverty and hunger, the cost of education is of primary importance and radio has been shown to have the lowest cost per unit for the educational message (Radio for Literacy, 1985). In reaching rural populations, extension agents are the most expensive means, radio is the least expensive, and radio can be used to complement extension workers (Perraton, Jamison and Orivel, 1983; Local Radio.(2003). Retrieved February, 2003, from http://www.farmradio.org/english/work.html).

Radio is accessible to local communities, and community radio, in particular, is driven by the needs of particular people in particular localities (Siemering, 2002). For example, indigenous people have their own radio stations across Latin America, which take account of local languages and traditions (Buckley, 2002). There are radio stations, many which describe themselves as educational, run by peasants' organizations and women's groups, and there are radio stations run by the Catholic Church or by trade unions such as those of the Bolivian tin miners (ibid).

In African-American communities, community radio almost always engages in education regarding drugs and voting, and provides 'culturally specific' programming as a source for African-American history, pride and especially promoted 'black achievement' in education (Johnnson and Birk, 1990; Berry and Miller,1996). These African-American owned stations also work to bring art, business information and career

conferences to their communities (Johnson and Birk, 1996). As "community radio" stations, these stations operate in and define their mission by the community. "Our people are real clear on directions. All we do when we get on air is articulate what the people are saying" (Albert-Honore, 1992 as cited in Berry and Miller, 1996).

In the 1950s, when radio was still the most popular communications medium, the Colombia University Center for Mass Communication produced a program about venereal disease that was transmitted by 500 stations around the country. The results were tremendous and thousands flocked into hospitals for check-ups. In Tennessee alone, over 18,000 cases came for treatment because of the program (Barnauw as cited by Inquai, 1963).

Radio can be an effective tool for education, yet is seriously underutilized and under researched as described by Bates (1983) and Dodds (1996). The UNESCO commission report stated that,

> "Radio is the only advanced communications technique which has found its proper place in the developing countries... Yet it seems to us that insufficient use is made of this virtually universal method of distribution...The very low cost and adequate reliability in all climates of miniature transistor radios mean that radio broadcasting should more and more be recognized as a particularly suitable medium for educational purposes" (Faure as cited in Katz and Wedell, 1977).

Radio Sutatenza

Decades ago, before television and computers became the predominant educational medium, radio had proved itself to be very effective for mass education. The

story of Radio Sutatenza (Fraser and Restrepo-Estrada, 1998) deserves particular mention as an example of how adult education and radio can be successfully combined.

Radio Sutatenza was begun by a young Catholic priest, Jose Joaquin Salcedo, who was sent to the poor rural parish of Sutatenza, Colombia, a hamlet of 80 people and the parish center for 9,000 church members. Salcedo had never leaned towards traditional methods of instruction and usually supplied a film projector and films to his parishioners at his own expense. He promptly fell out of grace with his superior, but continued with his unusual methods. Salcedo proposed building a theatre to house his projector and soon had community support. This was followed by other recreational initiatives and eventually a small radio station, with the intention of reducing illiteracy and opening up educational opportunities.

The initial programming was mostly entertainment aimed toward training the people to use and acquire more radios for the educational goals of the future. As word spread about mass education through radio, the president of the country lent his support and formally inaugurated the radio schools in 1948. That same year UNESCO sent two specialists to help a local teacher draw up the content and design the educational programs for the schools. In the second half of 1948 General Electric Corporation of the US donated a more sophisticated transmitter, and 100 radio receivers, and later $60,000.00 (a huge sum at that time). With Salcedo's exceptional vision and organizational skill, the station became united into a foundation, the Accion Cultural Popular (ACPO), devoted to fighting poverty and its causes. Community members were trained to work locally with the broadcast information and to communicate with the programmers. By 1958, 1,888 assistants were working in the villages with the radio

schools. In the following years ACPO covered the whole of Colombia, and became the most powerful radio station in the country. Its transmitters reached into all five neighboring countries, but always kept the name Radio Sutatenza.

The educational radio programming was supplemented with other media in the later years and ACPO produced its own publications and records. Among its publications, ACPO produced six textbooks for use with its educational programming. They covered literacy, numeracy, correct speech, health, agriculture, and community life.

In 1958 ACPO launched a weekly newspaper called El Campesino, which soon reached a circulation of 120,000, with an estimated five readers per copy. It was attractively designed and covered news and items of interest for improving peasant life. Peasants who had completed the basic literacy course were encouraged to write their first letter to ACPO and were always given a thorough response, no easy feat as they received up to 50,000 letters per year by the 1970s.

ACPO survived many takeover attempts by the government and continued to grow for 40 years, until its eventual demise at the hands of a bishop, who did not support its independent ways. There were also repeated assassination attempts aimed at Salcedo, who eventually fled to the United States.

The documented results of the radio school's efforts are: 22,500 houses improved, 184,700 vegetable plots and 2,030 trees planted, 3,680 aqueducts built, each bringing water to 10-12 houses, 2,160 basketball courts built, 3,689 teams organized, 28,000 cesspits constructed and many bridges and miles of rural roads. ACPO had broadcast more than 1.5 million hours of radio programs from its various stations; it had printed 76 million copies of its newspaper; it had distributed about 6.5 million text books and 4.5

million copies of other books; and it had trained almost 25,000 peasant leaders and community development workers. The station received an average of 800 letters per day. When the literacy program extended into the armed forces, 88% of listeners were taught to read after 75 radio lessons, and 85% of prison inmates passed their literacy exam within eight months (Fraser and Restrepo-Estrada, 1998).

There have been other success stories of radio education, but none quite so dramatic as Radio Sutatenza. Never the less, much has been understood about methods that lead to success of education by radio, and why it is an appropriate technology for developing countries.

Nonformal Education and Radio

The relationship between radio and nonformal education deserves a critical look, particularly as most would perceive radio to be a tool of information and entertainment, but not education.

Understanding the boundaries and philosophy of nonformal education is particularly important, as nonformal education differs in substantial ways from traditional classroom education. Both traditional and nonformal education set goals, but how the goals are determined and measured is critically different.

Nonformal education is given an analytical definition by Muller (1985). Muller says that nonformal education is: *any intentional and systematic enterprise (usually outside of traditional schooling) in which content, media, time units, admission criteria, staff, facilities and other system components are selected/or adapted for particular students, populations or situations in order to maximize attainment of the learning*

mission and minimize maintenance constraints of the system. Bhola (1979) has stated that by temper, nonformal education is often radical, humanist and egalitarian, open-ended, authentic and participative. Nonformal education is focused on the learner's needs, not the politics or purposes of the educational system and sees the learner's perceptions of the content as fundamental, not marginal.

Eduard C. Lindeman, an early proponent of adult education, speaks to nonformal education regarding the adult learner. Lindeman, in Houle (1972) says that in nonformal or adult education, subject matter is brought into the situation, it is "put to work", when needed. He says that texts and teachers play a new and secondary role in this type of education, as they must give way to the primary importance of the learner. According to Knowles (1967 as cited in Tough, 1971) adults engage in learning largely to respond to pressure they feel from current life problems; their time perspective is one of immediate application...they tend to enter any educational activity in a *problem-centered* frame of mind.

Because the adult learner approaches his learning in a problem-centered frame of mind, he is looking for immediate answers, solutions to very real, practical issues of his life. As Lindeman stated above, they want the subject matter to be "put to work", not left for theorizing about the future. Immediacy is a key component to nonformal education and, in complement to immediacy, the resource of highest value in adult education is the *learner's experience* (Lindeman,1926 ed.Gross, 1982).

Lindeman is supported in his theories of adult nonformal education by Knowles (1984), who states five assumptions about learners that should be held by the educator of adults in any situation:

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy.
2. Adults' orientation to learning is life-centered
3. Experience is the richest resource for adults' learning.
4. Adults have a deep need to be self-directing.
5. Individual differences among people increase with age.

These assumptions are a mandate to assess and analyze the needs of the adult learners and to make them partners in the learning process. Adults want to be respected for what they know and to see real needs met in the process.

As Bhola (1979) stated above, there is almost always a humanist component to adult nonformal education, a desire to somehow level the playing field among adults in any given situation, promoting access to information that could bring direct change into the lives of the adult learners. There is a danger in this, however, as seen by Houle (1972). Houle believes that the conception of adult education as solely an activity of a welfare state or a private charity limits its scope and narrows its range of designs. Oftentimes, educational programs that are required by the adult learner are not held to the same standard of professional planning and analysis as their more formal counterparts within the institutional environment. Most damaging of all is the separation of educators from learners along class or income lines and the consequent introduction of an overt or covert condescension into the very heart of the educative process (Houle, 1972).

Houle's concern touches on an essential character of adult nonformal education, one that clearly separates it from the pedagogical approach of children's education.

Knowles (1980) simplistically defines pedagogy as the "art and science of teaching children." In contrast, "the art and science of *helping adults learn*" is andragogy. One of the most important distinctions of andragogy is the role of the educational programmer as helper, facilitator, peer, not teacher. An educator of adults, according to Knowles (1980), will not be able to fulfill his/her educator functions without developing a strong relationship with the learner. The role of the adult educator is dependent upon this learner-educator relationship (Teja and Levine, 2002).

An interconnected, symbiotic relationship between educator and learner exists in nonformal adult education. The educator works to know the needs of the learner, and fundamentally, the content of the educational material is defined by the learners' needs. Whether it is an individual adult learner or a community of adults, as in radio education, a "relationship view" as described by Levine (2002) is fundamental. Levine states that a relationship view holds that it is not possible nor desirable to create packaged approaches to teaching without first taking into serious consideration the uniqueness of each individual learner (or community of learners). This quality of relationship is one that differentiates radio for information from radio for education. Levine (2002) states that if the instructor does not welcome each learner (or community) to interaction there is a high probability that any course of instruction will turn into a one way exercise in information delivery (information radio).

Storytelling and Educational Radio

In attempting to relate well to radio listeners, radio programmers have rediscovered what educators have always known about engaging learners. Drama or

storytelling engages the heart and affects change (Myers, 2003; Fraser and Restrepo-Estrada, 1998; Farm Radio Network, 2003). Tough (1971) states that much successful learning occurs because of the sheer enjoyment of the content.

When a Jamaican audience was asked whether they preferred straight reading of the news in broadcast-quality "proper" English, a straight reading in colloquial Jamaican English dialect or a dramatic dialogue on news of the day between villagers, they chose the dramatized version (Moody, 1986).

In England, a series was created in 1951 to educate farm families about many issues related to rural life. Imitating a radio concept taken from a successful radio crime series called *Dick Barton-Special Agent*, the program hired the same writers who had made *Dick Barton* a success (that program had been cancelled because it was thought to have a bad influence on the young). The writers, under the direct influence of the head of BBC Outside Broadcasting, Godfrey Baseley, were asked to create eight characters who would encompass all the possible problems and questions of rural life. Baseley named them, *The Archers*. Baseley defined this series as unique in its commitment to education within the storyline, yet knew it must be very entertaining to maintain its listeners. It was decided that the guideline for the mix of entertainment and education would be sixty percent entertainment, thirty percent information and ten percent education. Each episode was 15 minutes long and each would end with a "cliff-hanger". Music would play an important part as introduction and to help transitions between time and location and with the end of each episode. Extreme attention to details concerning sound effects, current news and technical information was insisted upon. After an initial three-month trial time slot, the series was given prime time each weekday evening. Before the advent

of television, at its height, the Archers was listened to by two out of three adults in Great Britain, more than 20 million people, on a regular basis (Fraser and Restrepo-Estrada, 1998). The Archers continues to this day on BBC Radio, with Internet additions.

Group Dynamics and Education

When a large sector of a population is listening to the same message, the result is a higher level of learning because of group interaction and discussion. In a study sponsored by UNESCO, Paul Neurath (1959, 1960 as cited in Nwaerondu and Thompson, 1987) studied the effects of a Farm Radio Forum project in Poona, India. He compared 145 forum villages with non-forum villages over a period of ten weeks. They listened to a radio program on agriculture, health and literacy twice a week for thirty minutes in groups of twenty adults. According to Neurath (ibid):

> Radio farm forums as an agent for transmission of knowledge has proved to be a success beyond expectation. Increase in knowledge in the forum villages between pre-and post-broadcasts was spectacular, where in the non-forum villages it was negligible. (p. 105)

In a study by Jain (1969 as cited in Nwaerondu and Thompson, 1987) the results showed that group listening followed by group discussion was more influential in changing beliefs and attitudes towards innovation than was group listening without discussion. Group decision making was found to be an important factor as well. It enabled farmers to approach their problems in a more informed fashion and to work

together towards the solution. Also, illiterates did as well as literates in the amount of knowledge gained (ibid).

Group discussion around a radio topic is consistent with the participative and cooperative nature of adult nonformal education as stated above. The adult is in charge of his own learning and is bringing his life experiences to the learning process (Knowles, 1984). For radio education to be most effective some type of human interaction is necessary, be that within a forum or with a trained facilitator or an extension agent (Nwaerondu and Thompson, 1987) The use of printed materials and audio-visual aids can greatly enhance the effectiveness of education through radio (Cerquiera, Casanueva, Ferrer, Fonaanot, Chavey, & Flores, 1979 as cited in Nwaerondu and Thompson, 1987). In studies from Ethiopia to Mongolia, learners who follow radio instruction along with printed materials, and discussed questions and problems together, have shown significant success in learning (Tilson and Bekele, 2000;World Bank Global Report 2001; Rogers, Brown and Vermilion, 1977). Imitating the style of an active formal classroom, interactive radio instruction includes time for students to respond to each other or a classroom facilitator (Oujo, 2003; Walker and Dhanarajan, 2000).

Educational Radio Today and Tomorrow

Today, interactive radio instruction has become "IRI," a programming model which follows closely the cooperative philosophy of the past, but has systematized the thinking (Tilson and Bekele, 2000). IRI has been extensively evaluated in programs teaching English, mathematics, science and health and has consistently shown a strong impact on learning (ibid). In Ethiopia, Grade 9 radio lessons have been produced for

Amharic, English, Biology, Chemistry, History and Geography and they are developing the curriculum through grade 12.

For many years the Ethiopian Ministry of Education has been conducting twenty-minute weekly broadcasts to coincide with correspondence courses for out-of-school youth and adults. In the year 2000 between seven and eight thousand students were enrolled, taking five to six courses at a time (Tilson and Bekele, 2000). The ministry is also working in the areas of teacher education and nonformal education on topics of particular concern to of each region.

With the advent of satellite radio, there are both new opportunities and new challenges for educational radio. More areas will be reached by radio broadcasts, and yet the price of entering the competition will most likely increase (Buckley, 2000). Meeting the needs of local populations will require policies mindful of those needs. WorldSpace, which has recently launched its AfriSat satellite, although a commercial venture, has dedicated part of its broadcasting capacity to the nonprofit sector in areas such as education and health (Tilson and Bekele, 2000).

Satellite radio may soon reach all corners of the globe, expanding and complicating the debate about its use. Educational radio has struggled in the developing and developed world to find its proper place in the broad spectrum of education. Buckley (2000) warns that for radio to expand in its capacity in education and development, policy makers are key. Regulations and policy measures must recognize community radio as a form of public service, unique in its contribution to social inclusion, local dialogue, the democratic process and education.

CHAPTER THREE

Research Methodology

This chapter describes the research methodology that was used to explore the environment, resources, mission, philosophy, personnel and objectives of five radio stations. The chapter includes a description of the design of the study, population and sample, instrumentation, and procedures that were used to collect and analyze the data.

Design of Study

This study followed a survey research design and is a qualitative survey in nature. Interviews were conducted and analyzed thematically with respect to the research themes. Due to the wide geographic separation of the population and time constraints, data were collected through telephone interviews and then qualitatively analyzed.

Population: Educational Radio Stations

The target population for this study included radio-broadcasting organizations which appeared to have education as part of their mission, both in the United States and abroad and which defined themselves as community, public or developmental, either in the United States or abroad. The stations would describe their target audience as a distinct body with a clear need for the messages of the programs, be the need physical, cultural or political.

A listing of such organizations was found by searching the world wide web with the terms: development radio, radio education, community radio, radio listening groups,

radio focus groups, Native American Education, radio distance education and Australian radio education. Also, one station was suggested by the Commonwealth of Learning and one was recommended by a previous contact.

A sample of five educational radio stations was selected by convenience sampling methods. Initially, a general email was sent to forty-four organizations or individuals associated with an organization under the categories named above on the world-wide-web. Of those forty-four, two received fax letters and one received a phone call, as they had no email addresses. This initial email gave a brief summary of the researcher and the survey and asked them to return a section of the email with their name and phone number if they were willing to be a part of the survey or wanted additional information.

Of the forty-four emails (or faxes/phone call), ten responded positively about becoming involved in the study. Five of these expressed an interest but did not fill out the Agreement to Participate form and eventually dropped out of the study. The final five which were a part of the study returned the Agreement to Participate form and set up times for the telephone interview with the researcher.

Data were collected from the managers in charge of programs.

Data Collection

The study was first approved by UCRIHS (University Committee on Research Involving Human Subjects). An email or phone call was initially used to determine if the radio station managers were willing to be interviewed and included in the study. An invitation to participate letter was then sent to those indicating an interest in the study. This letter clearly stated the responsibilities of the researcher towards the participants and

their rights as participants and the confidential nature of the material collected (Appendix A). Those who agreed to take part in the survey returned an email that included contact information and an agreement to participate form as well as convenient times for the actual interview (Appendix B). A list of questions was sent to the interviewees to preview ahead of the phone interview (Appendix C). The researcher scheduled the interviews according to the time constraints of the interviewees. Interviews took no more than one hour. All interviews were recorded using a speaker telephone and a micro-cassette tape recorder. All interviewees were informed from the beginning that the interview was being recorded and that the tape would be available only to the researcher.

Upon completion of the interviews, the recorded tapes were transcribed into a word processing document by the researcher.

The documents were then used to thematically analyze the data. The researcher highlighted those responses that appeared to emphasize similar aspects of a topic or to bring insight to what another interviewee may have revealed.

Instrumentation

The instrumentation used to gather information regarding educational radio and its relation to nonformal education was a telephone interview conducted by the researcher. The interview ranged from forty-five minutes to one hour in duration. The questions asked during the interview were developed from a perspective of developing a nonformal educational program. Those factors that would be involved with such development, such as assessing the needs of their learners, were asked of the interviewees. As each question was asked the interviewees might answer a subsequent

questions before it was required and therefore, each question was not necessarily asked, but were covered within the responses of the interviewees.

Chapter Four

Results and Discussion

This chapter summarizes the results from the telephone interviews that were conducted. It includes two sections. The first section outlines the parameters of the actual stations, or the organization behind the broadcasting, as in the case of Women's Issues Project. This section also describes the interviewees who participated in the study. The second section describes four themes related to educational radio found throughout the interviews.

Radio Station and Interviewee Descriptions

Following is a brief description of each radio station and the interviewee who participated in the research study. All names of interviewees, their organizations and associated radio stations have been changed to protect confidentiality.

Women's Issues Project with Mr. A

Women's Issue Project was begun by Mr. A in 1998 and has a focus on issues related to family size, family planning use, status of women and related topics. They use primarily "entertainment education" strategies as outlined by Miguel Sabido, the former Vice President for Research of Televisa in Mexico and the social learning theories of Alfred Bandura of Stanford University.

The Women's Issue Project (WIP) is largely funded by individual donations but does receive some money from foundations and the federal government. WIP has worked

with the Center for Disease Control, assisting them in the battle against HIV/Aids. At the time of the interview WIP was on the air in Ethiopia and doing formative research in the Sudan. They have had programs in Tanzania, India, Nepal, the Philippines, Mexico and Brazil.

WIP uses staff native to each country to do research, write the radio dramas, produce the dramas and then evaluate the effectiveness of their work. There is a high priority put on evaluation.

Mr. A

Mr. A formerly worked as a research scientist in biology and later moved into the area of population studies. He became interested in the work of Miquel Sabido with Televista in Mexico, which had remarkable success influencing cultural behavior through television soap operas. Mr. A decided to use radio drama to influence behavior related to sexual behavior and women. He works out of the United States with a small American staff, assisting the work of the nationals who create the radio dramas in their countries.

KBBB Radio Station, Hobble Town, California with Mr. B

The KBBB radio station was begun by the Hobble Tribal Education Committee in 1978, with the purpose of promoting the Hobble language. It started as a ten-watt station, with a range sufficient to cover the valley where the Hobble community, of approximately two thousand, live. In 1980, the Federal Communications Commission determined to eliminate ten-watt stations. KBBB changed to the required100 watts and

expanded the programming to meet the needs of the entire community, not just the Hobbles, which was also required in the transition.

KBBB is a small station with a paid staff of three, but enthusiastic volunteer support. KBBB broadcasts all of the high school basketball games from a live remote (Hobble Skywalkers won the Northern California championship) and has volunteers doing music and informational programs. Besides the Hobble BINGO game, created by volunteers to teach students and adults the Hobble language, KBBB supports the local community college, and broadcasts a range of programs on health and social services as well as political information.

KBBB is primarily funded by the Corporation for Public Broadcasting as the local economy is unable to assist with financial support.

Mr. B

Mr. B is a Native American of the Hobble Tribe, who helped start the American Indian Radio and Satellite Network. He has worked in radio for over twenty years and is very involved with promoting education through broadcasting. Mr. B is interested in using radio drama, but presently lacks the staff and resources to do so. He believes that young people are not interested in pursuing radio broadcasting as a career as it is seen to have low financial rewards. Mr. B stated that the Corporation for Public Broadcasting puts very little emphasis on Native American Radio, as compared to National Public Radio, African American Radio and Hispanic Radio.

KCCC FM at Montco Western Community College with Ms. C

KCCC was begun in 1981 by Montco Western to supply public radio for southwestern Montco and to support their academic programs in electronic media. It is a 100,000-watt station with a broadcast radius of one hundred miles. In competition with two other public radio stations, KCCC had a low percentage of the listening market and was very expensive for the college to operate. As a result, Ms. C was hired to revamp the programming and to increase the listening audience. The new format eliminated much of the typical public radio music and now plays "adult alternative" aimed at young college students, young professionals and others between the ages of nineteen and thirty-four.

KCCC continues to meet the needs of the community, produces community surveys, has many call-in shows and an active chat line associated with its web page. The educational programming involves interviews with faculty and other guests for information relevant to community needs. KCCC does many live remote broadcasts from nonprofits and recreational areas and has a very active email correspondence with their listeners.

KCCC is integrated with college classes and had sixty-four volunteer students working with them at the time of the interview. There are six full-time and three part-time staff.

Since changing formats, KCCC has increased its audience from 14,000 to 85,000 and the college has seen a fourteen-percent increase in enrollment. Previously, KCCC was losing $250,000 per year in operating costs and today is close to profitable for the community college.

Ms. C

Ms. C came to Montco Western Community College from her work in radio at a Michigan college. She has a Master's in Communications. She was brought to her position with the express purpose of revitalizing a station that was a financial drain on the community college. Until July of 2003, she was both Department Chair for Electronic Media Studies and general manager for KCCC-FM and is now the Department Chair for Electronic Media Studies and student advisor to those in the program. As a result of her advising she knows that almost all of the students studying radio have listened to various programs on KCCC.

Ms. C was required to hire new staff at KCCC as the previous staff had no interest in working with alternative music. She is very focused on keeping the listeners satisfied as she recognizes that community financial support is essential to the survival of the station, with less and less outside support available and less state money for the college. Last year KCCC raised $130,000 to support the work.

KDDD FM, University of Northern Montco with Mr. D

KDDD FM began as a 10-watt station with a 10 mile broadcasting radius in 1960. Today KDDD is a 100,000-watt station with a coverage area of ninety miles including a smaller 10,000-watt station that transmits jazz and classical music 24 hours per day by automation. KDDD serves both urban and rural populations, which includes many small towns (Montco ranks in the top ten for towns under two thousand).

KDDD has a paid staff of twenty-one and uses volunteers only in very limited capacity. The station has managed to greatly increase local fundraising to offset losses

from the university as a result of budget cuts in recent years. KDDD is one of the oldest radio stations in the country to have an incorporated friends group which handles their fundraising and the money they acquire through fundraising. The friends group also works with volunteers and other projects.

Mr. D estimated the public affairs and news/education portion of the broadcasting at sixty percent. KDDD has been unusually successful in incorporating a wide range of musical styles throughout the day and evening broadcasts. They include classical, folk, blues and album acoustic alternative, a singer-songwriter combination. Much of the programming is purchased from Public Radio International. The orientation in programming is towards that in which the public has expressed an interest and has involved political topics and speakers, educators, mental and physical health information and storytelling.

Mr. D

Mr. D has been involved with radio production at the University of Northern Montco for over thirty years. After being assistant director of the station for many years, he is now program director. He is strongly committed to professionalism at the station, and only uses volunteers in a limited capacity, usually for labor intensive work during fundraising.

Mr. D expressed an interest in educational radio, however, he does not use the term educational in reference to it. The station buys many programs from National Public Radio and independent producers. Mr. D said that they work hard at meeting the listener needs as expressed in the Federal Communications Commission required survey.

KEEE, Little Town, Montco with Mr. E

KEEE is an unusual station in an unusual town. Little Town, Montco has less than 2,500 people and yet has a highly diverse ethnic mix that has put them on the sociological map. A major book was published about Little Town and how rural Americans dealt with an influx of large numbers of non-English speaking foreigners, from three different ethnic backgrounds.

KEEE, at the time of the interview had been operating for ten months, with Mr. E. as the one paid employee. Officially, KEEE is a 250-watt noncommercial educational station with a broadcasting radius of twelve miles, but the programming has been received thirty-five miles away. They operate twenty-four hours per day with the assistance of KDDD of the University of Northern Montco, their partner station.

The idea of a radio station began with a Lutheran pastor who saw it as a vehicle for education and cooperation for the non-English speaking immigrant community of Little Town. Little Town has attracted communities of Hasidic Jews, Mexicans and Ukrainians within the past five years. The town more than doubled in size with the arrival of the immigrant communities. The radio programs, therefore, include at least one program per week in Hebrew, Spanish and Ukrainian.

Some of the programming includes public service announcements about health, weather problems such as frostbite and police concerns in the native languages. Each group has broadcast on their specific cultural practices to inform the larger community.

KEEE is run almost entirely by volunteers and each ethnic group determines what

they are going to produce. Mr. E monitors the groups' ideas and sometimes initiates agendas but ultimately, the groups determine what their programming will be.

There is much interest in teaching English over the radio waves, and KEEE is currently writing grants to cover the expenses of such an endeavor.

Besides the foreign language programs, volunteers produce a live music program with local talent. KEEE cooperates with KDDD to broadcast classical and jazz music seven hours per day. However, the listeners have expressed more interest in country music for the future.

Mr. E

Mr. E came to KEEE with a background in journalism and a broad range of experiences overseas. After working in radio in Des Moines and Boston, he was employed by Voice of America in Kosovo after the war. He is now the only full-time employee at KEEE in Little Town, Montco.

Mr. E stated that he is seeking grants to expand the educational programming, especially in regards to English as a Second Language, and is also looking at greater involvement from the student population and more coverage of local sports.

Discussion of Themes

Four major themes emerged from the analysis of the interviews: understanding the radio listener as an adult learner, the dynamic balance between programming and funding, balancing education with listener interest and the importance of listener assessment. Both understanding the listener as an adult learner and balancing education with listener interest include the educational philosophy of the interviewees. This section describes each theme and captures the thoughts of the interviewees on each.

Understanding the Radio Listener as an Adult Learner

All of the interviewees expressed an understanding of the difficulties involved with educational radio programming. They took an andragogical approach to their task, with a clear understanding of the ease with which a listener could turn the dial to another station.

Mr. D (large university) stated, "Some people refer to this kind of programming as infoentertainment, or infotainment. I think it is really valid, where we can mix different types of things, not make it stodgy and documentary style." Mr. D went on to say, "So really the problem is identifying. What we try to do is we try to meet the needs of our Ascertainment Survey, that's an FCC requirement, basically by putting good programs on the air that identify which issues they (the people) speak to."

On this topic Mr. B (Hobble Indians) expressed a strong connection to his learners and their struggles. Discussing a conflict between two linguists with differing views on transcribing the Hobble language, Mr. B said, "And they ended up splitting the community. One would be in one camp and the other in the other camp... The elders did

not want to step forward and help out at the radio station because that would have been seen as promoting one linguist or the other."

Mr. B wants more elders in the community to speak Hobble on the air to encourage language development. However, he recognizes that the volunteers need guidance and structure to do so comfortably." We are still prodding them. It seems like they have to know what they are going to be talking about, and this is a stumbling thing. But maybe give them a picture, and describe the picture."

At the Native American station, an exciting, BINGO game-oriented language program teaching the language of Hobble, not only met a need, but has created interest that did not previously exist. Mr. B said that, "When classes are in, we get of lot of calls, they listen to it in the school, during that class actually. We get a lot of calls from them. And then, what I found out, a lot of tribal employees are playing along with this, in tribal departments... They are supposed to be working, but they are listening along with this half-hour." Mr. B mentioned that he is attempting to expand the language program into the evening hours, as so many people have requested additional time to become involved.

Because of the success of the language program on the reservation, Mr. B is attempting to expand the language lessons to their subcarrier channels and to cooperate with the local newspaper to print out lessons being relayed by the radio station. The listeners have expressed a real desire for more language instruction.

Ms. C (community college) mentioned her perspective on educating her targeted community of young adults, "We are very heavy call-oriented during the regular programming... We meet the cultural needs of part of the community, we meet the educational needs. Really everyone speaks of cultural as being more lofty than a rock

band, but in essence, that's still art, that's still culture, that's what we have been emphasizing."

As an educator working to influence health issues in the developing world, Mr. A had a clearly articulated understanding of his organization's philosophy. "I feel very strongly that to be effective at attracting and holding a large audience, entertainment education must have a huge emphasis on the entertainment component. And there are too many organizations that have decided that you can have a drama in which characters lecture each other about methods of family planning and side effects or you can have a drama in which characters discuss for an hour the effects of HIV Aids. It just doesn't work. The audience is turned off and sees it as even worse than an infomercial."

Among all of the interviewees, there was no mention of theoretical topics as part of programming. Mr. D (large university) stated, "We do call-in programs every month with our state senators, with legislators, with congressional representatives, with people here at Northern Montco who are involved with education... We do round tables, the Montco caucuses are coming up, we are working on having all of the presidential candidates on air; that is a cooperative venture of the public stations around the state."

Ms. C (community college), who also works with a college owned station, said, "We also have another show called La De Dah, a half hour talk show that features several of our faculty of Montco Western who talk about specific issues that again, are of interest to our community. And we bring in guests to talk about how you do job interviews, how you report child abuse and those type of things."

Ms. C also mentioned that as part of their educational focus, the station does a lot of live remotes from nonprofit businesses and other agencies serving the community.

KCCC also works directly with the political process. "In fact, we are going on October 14, to get out the vote, to register young people. We will be in six different communities and are working with the Secretary of State Office in Montco. She is real excited about it and we are, too. We try to do as much as we can in that line."

Mr. A (overseas) spoke of the thorough formative research required in a given community that precedes the script writing of the radio dramas. "You'll see...research of 3,000 individuals that we did before the program, focus groups all around the country to get qualitative information on how people view these issues and how they live. Given this information, we need to create realistic characters with which they can identify." When asked if the nonprofit which Mr. A directs writes scripts and then sends them to local partners to be adapted, his response was clearly in disagreement. "We have a very different model. We do not write the programs and send out the script...What we do is create a local team run by the country nationals. And they bring together the great writers, particularly drama or playwrights of the country. And we train them in the methodology (Sabido) and then train the research team to do the formative research...So, its much stronger because you have characters who are much more like the audience in each country because they are locally created."

Mr. A felt that the question of conflicts between those producing information and those needing information was an important one. He said, "What gives us the right to choose topics and the particular point of view that gets promoted or demoted in the program and the answer is nothing. Therefore we don't." He then elaborated on their method for choosing topics for the radio dramas. "First, we find out what the official policy is in the country. We take a look at the laws and constitutions of the country and

policies of the country with regard to everything from population to HIV Aids to women's issues and we look a the UN agreements to which the country is a signatory and on the basis of that we develop a policy framework for the country."

Mr. A has determined that drama is the only way to educate for social change, and his organization expends no energy elsewhere. His list of successes, which he described and which is also delineated on the web, are startling in their impact, as documented through surveys, letters, telephone calls and focus groups.

Mr. E (Little Town) recognized that within his role as facilitator, he could only guide and advise the various ethnic groups in their choice of programming. "I would say that I am here to advise them, but I don't have a real heavy hand about it. I make suggestions and usually we, let me fix that. I think really a lot of the ideas that make it on the air are ideas they just thought up on their own. Once in a while they will have an idea and bounce it off me first, and you know, say we ought to try this...Mostly ideas they come up with but frequently they will ask me what I think before they do it." When asked whether the volunteer programmers were seeking the input of the community, Mr. E said, "I certainly encourage that, which is why when ideas come up, that is one of our main questions. Is this what you think would best serve your listeners?...I will try to give advice and get them thinking along those lines." Mr. E mentioned that they expect to have more foreign language broadcast times as the communities develop their abilities in radio broadcasting.

Because of the size and range of the Little Town station (technically 12 miles), volunteers are a major part of the work and are often being asked to contribute. Mr. E said, in comparing the work of volunteers at his station to a large college town like East

Lansing, "You might have to stuff envelopes or erase tapes for a semester before they let you do anything on the air. Here, somebody walks in the door and we give them a show!"

The Dynamic Balance Between Programming and Funding

Funding is a source of constant concern for all the radio stations. The interviewees were very open about the fine line they walk between programming and funding.

Mr. B (Hobble) mentioned that one of the few programs that received local support was the broadcasting of the high school basketball games, but in general, his community has little financial capital to expend on radio. As a result, their station receives far less money from the Corporation for Public Broadcasting, which requires matching community support for most of their grants. Mr. B said, with quiet sarcasm, "The Corporation for Public Broadcasting has to realize that Indian radio is what I hear in outer space somewhere. National Public Radio is a big planet like Jupiter and then you have black public radio and Hispanic and they are the satellites going around Jupiter. And then there is Indian native radio and we're somewhere out there in space." He referenced the difficulties of getting ahead because of the lack of local money. "With the NFS (nonfederal funding sources), the more money you bring in, the more you are rewarded... We can't generate it...so we just take the minimum." The station does, however, qualify for some additional funding because of its minority character, which increases their funding by thirty percent.

Mr. B has some thoughtful plans for raising more support. He is bringing in VISTA volunteers for the first time, and is contacting the Ford Foundation on their work

with native telecommunications. Also, he wants to propose changes in the level of federal support to Native American services such as the radio station to give them the same impact aid they are currently supplying the schools.

As the head of a nonprofit that is currently dealing with issues very high on the social agenda, Mr. A (overseas) appears to have much less concern for funding than does his Native American counterpart. Along with the assistance his group receives from corporations, the majority of Women's Issues Project's funding comes from individual donors. Mr. A also mentioned that their organization has done some work for the Center for Disease Control and has also worked under a United Nations project, but in general, do not. Some of their grants are earmarked for specific country projects, but most allow them to pursue their work unhindered.

In the case of Mr. A, whose donors are largely American and whose audience is African or Asian, he seeks to accomplish the expectations of his donors by meeting the social goals that his donors and his organization espouse.

A community college radio station has a decidedly difficult job, balancing education and entertainment. Ms. C stated that a specific goal of the college president was to stop the financial losses of the radio station and to make it more relevant to the college-aged listener. In doing so they have assisted in the growth of student enrollment by a substantial percentage and revenues have grown to where the station is largely self-supporting. Ms. C said, "It took a long time for us ...we were basically profitable last year, very close to profitable, which is a big change from being $250,000.00 in the hole. For a small community college, that is a huge amount of money...We tried to be sure that we didn't do anything that didn't meet at least two or three needs somewhere. We didn't

have the resources, the personnel, or anything. Everything had to meet two or three aspects of our goals, or we didn't even measure it."

Ms. C was very clear about their foresight on funding. She recognized years ago, that the station needed more community support, as funding at the state level would likely decrease. "We saw this from the beginning. We saw the writing on the wall and said we really needed to strengthen our underwriting, we needed to strengthen our fundraising efforts. Can't live with the price of education as it is now. And so, you'll be gone."

In order to keep that community support, Ms. C said that the educational programs take up about 5% of the actual airtime. "This is a tough world and you have to pay your bills. We are competitive with our counterparts, although that is not our goal. We are competitive because we exist and we do have 85,000 listeners and they are not listening to *their* (competitor's) station...We do more than anybody else in our type of musical genre. Its still really challenging because we have to pay our bills...no one is going to donate money if they don't listen, so we still have to remain educationally and culturally based. It's a real fine, hard mix to match."

The message was very similar for Mr. D (large college), although his station is located at a larger college and has a much larger staff. He stated that, "We lost about a third of our support a year ago. Now, roughly divided, about a third comes from the Corporation for Public Broadcasting and business support, that would be underwriting, a third comes from the university and a third comes from fundraising." When asked about fundraising today he said that, "Our on air fundraising has increased dramatically. As a

matter of fact, we were just about able to make up for all of the loss from the university last year."

Educational radio is not a profitable venture and will always require the support of external organizations, both public and private and that of individuals who believe in their work. Each interviewee was very open about the need for creativity and diligence to keep themselves financially solvent. They recognized how dependent their funding was upon a positive relationship with their listening audience.

Balancing Education with Listener Interest

As the previous discussion emphasizes, educational radio can only be a small percentage of the actual broadcast time, to keep a majority of listeners returning again and again. This percentage may be integrated within high interest material, such as drama, or set apart totally, as in a discussion between election candidates. Programmers have to be highly selective about both content and delivery of educational material.

Mr. D (large college) stated, "What we learned a long time ago, if you call a program educational, you're just about inviting everybody in your listening audience to tune it out...That's why we are not educational radio anymore, why thirty years ago, we became public radio...These programs don't really stand alone as shows. Your best way to do that is to do a program like All Things Considered, which is modular and covers a wide variety of topics...Trying to sustain a "one-theme only" each week is probably an invitation to disaster. There are times when you can make that work, but those shows for us are not in prime time. We try to put those in early fringe for people who might be interested, and I'm talking about older Americans who get up early in the morning."

When asked about a ratio of education to entertainment in his radio dramas, Mr. A (overseas) said, "Imagine a serial melodrama or a soap opera in which a man had a girlfriend and a wife. Is that a social issue or entertainment? Well, it's both. So, how do you decide what is entertainment and what is education? Our emphasis is on entertainment and we want to attract a very large audience. To really educate the audience in a way that affects behavior and not just the intellectual part of their brain."

Mr. A explains the methodology they use as adapted from Miquel Sabido. "We are not just giving them information or messages, we are actually creating role models to adopt different attitudes, behaviors and lifestyles. To realize consequences when the audience observes the consequences, the positive and negative, for positive and negative behaviors and takes that away and that is what is the primary emphasis for people to change behavior. When they are in love with somebody, whether vicarious or a real person, who they see changing the behavior from the tradition and see a positive consequence and see a negative consequence for a different behavior and they say, I want to be like person A, not person B, and start adopting some new behaviors. So it is educational, but in many ways, instead of the word education, our emphasis is on motivational content, in addition to entertainment."

Sabido's methodology, which involves a large amount of formative research in the country or area in which a drama will be broadcast, recognizes that all adult learners have to feel some degree of emotional connection to a "mentor" in order to change behavior. Mr. A used the term "in love with" to explain the strength of the connection a listener requires towards a dramatic character, or real person, to initiate and maintain change in value-laden behavior. He stated that many listeners wrote to a character from

the radio dramas as if they were real people, explaining the differences that character had made in their lives. These characters were created with an integral knowledge of the culture, by local writers of talent, with a heart for the message being communicated.

Radio drama, so much cheaper and easier to produce than television, is not only used in the developing world for education. The two program directors that were the closest to their small communities, Mr. B (Hobble Indians) and Mr. E (Little Town), expressed a strong interest in using radio drama. For both, it was only a lack of funds or personnel that prevented them from realizing their dreams for radio drama. Each felt that they could draw support from the youth of the area if they used drama, but presently didn't have the resources to do so. However, as experienced as each was in the field of radio, they understood the power and attraction of drama on radio for both education and entertainment.

Working with such a small and fairly cohesive group as Mr. B (Hobble Indians) does, his response time to community interests appears shorter. His station seems to have a greater percentage of time allocated directly to community needs, although he did not discuss actual numbers. As a result of the success of the BINGO language game, community members have requested more language training directly from elders and also information on the history of the valley, using both the station and the newspaper together. He said, "Another idea that came from the community, they weren't talking about language, but talking about the history of the valley...one young man whose grandfather had taken a lot of pictures in the forties and fifties of what was here, and what is not here and what has replaced it...and I open up the phone line and I find out who else might remember something."

Mr. B was very clear on his understanding of educational radio. "You have to be more than talking heads. You have to have some excitement, you have to have humor... I would love to use drama, but we've only got three people here!" Although he is presently unable to use drama for education, Mr. B is actively looking at drama for the future. " I keep passing this information (on radio drama) off to our high school drama teacher, hoping they would (develop it). We've got the perfect studio for it."

At this point in time, in the developmental stages, Mr. E (Little Town) has relied heavily on the broadcast material of National Public Radio, airing programs like Morning Edition and All Things Considered, as well as classical and folk music. However, he recognizes that the classical music doesn't seem to be "tripping their trigger a whole lot" and is moving towards country music instead. There are plans to add more of the foreign language broadcasts in the near future as the interest appears quite high. They also broadcast live studio performers, and the entire program is organized by volunteers. "They have a guy who works for the water department and that is his hobby. Going around and seeing these bands and there is enough talent out there. And he's seen enough to know that they are able to book somebody every week." Tim mentioned that public education on health and safety issues was a major consideration in creating the station. "From a public safety standpoint, you are able to get out information that the local police were trying to get to the non-English speakers, that was a real practical reason for the station."

Mr. E stated that the station has just begun a farm program that excites him because the person doing the program has a "real gift" and he sees an educational and economic need being met in the community. He also recognizes that high school sports

are a proven draw for his listening audience and plans on adding sports broadcasting, like wrestling, to the present roster.

As Ms. C mentioned above, their community college station has worked hard to produce enough income to survive a very competitive market. It has been determined that competing local stations were meeting the needs of an older group of listeners, those typically attracted to public radio. Ms. C's station, being a part of a community college, felt it had a mandate to reach a much younger audience and to address issues related to them. Reaching and keeping that younger audience meant not only different educational content, but wholly different entertainment. As a result, the educational portion of their program is about five percent of the total, although they are more committed to serving the community than that number might reveal. In her words, "We want involvement process as opposed to educational programming. We try to get involved in promoting events as opposed to doing a lot of programming. So when somebody in the community has gone through a process where they are trying to get people to know what is happening, we get involved in the promotional aspect of that, to make sure the audience is aware that this is available to them. I think we probably do that more than actual programming on the air."

The Importance of Listener Assessment

All of the stations are required by their funding, as well as their actual survival, to do some form of listener assessment. These assessments vary from professional measurement companies to personal email, telephone calls and questionnaires at a medical clinic and others. Some forms of listener assessment are closely tied to the

timing of the educational material, and others may have a delay of a few years to determine if people are returning for the information over an extended period.

Mr. D (large college) relies heavily on Arbitron (a professional service) to determine the success of various programs. He said, "We usually try to take a look at those numbers and then take a look at our fundraising and we can generally track trends fairly clearly between the two. You don't want to jump to any conclusions, because we are dealing with smaller numbers and usually we try and work through a two or three year cycle before we make any adjustments." In regards to emails and phone calls, he said, "Probably they are going to tell more about what they don't like...it's probably more interesting to see what people are asking about rather than expressing an opinion." Regarding their web site, Mr. D mentioned tabulating hits per day, but cautioned that these have to include those who automatically bring up their site as a homepage. Finally, the amount of funds a particular broadcast encourages is a very important part of a successful rating.

Mr. B (Hobble Indians), dealing with a much smaller audience and much more accessible information about the community's thoughts and needs, often hears directly whether the programs are received positively or not. The number of volunteers he acquires for particular programs is also a clear indicator of a well-received broadcast as evidenced particularly by the high school basketball games. Mr. B is hoping to deepen the level of language instruction by having the people meet in various community centers and be tested by the elders, as well as having a potluck. At present, the BINGO language program has been assessed by the number of cards given away each week and the telephone calls that they trigger.

Ms. C mentioned that her station does surveys on a regular basis, both on campus and off campus in the mail. "We strongly encourage...our web site is probably our best way and the chat lines, they let us know what is going on, they tell us what they like and what they don't like." They, too, use Arbitron, but Ms C reads it cautiously as "Arbitron really does favor an older audience, because they are more likely to completely fill out a diary. A younger audience isn't quite as good...We just get a feel from what Arbitron will say." When Ms. C speaks to students as advisor to the telecommunications department, she said, "I do know that the majority of students who are going to school in the program are doing it because of what they hear on the Quest and they want to be a part of that."

Mr. A's organization, spread throughout the world, uses many different people and methods to assess the success of their radio dramas in changing behavior related to reproductive issues and women's rights. Using the results of a communications scholar, he stated that in their control area, 82% of the listening audience said their program caused them to change their behavior to avoid HIV Aids. "We couldn't independently verify monogamy (the single most common change), but we could verify condom distribution and we got information from the Aids control program broken down by district....There was a 16% increase in condom distribution (in the nonbroadcast area) , from other programs on the air. While in the broadcast area there was a 153% increase in condom distribution. Similar results with regard to family planning. A 32% increase in the number of people coming in to a clinic asking for family planning in the broadcast area, no change in the control area."

Mr. A also stated that he follows the advice of Everett Rogers, who wrote the book Diffusion of Innovations. His philosophy regarding research says, "If you get several different types of data from different directions all at the same time and they all point in the same direction, you have confidence and stronger evidence of your effects." Mr. A also stated the thinking of a Princeton demographer, "You can't prove anything in this world, you can only accumulate evidence." Mr. A continued, "On top of that, we get health service providers, like we did in (country) that ask people why they've come...Well, here are the shows that might have addressed that issue, is it one of these? We also do a quantitative nationwide survey that will ask about people's knowledge, attitude and behavior with regard to a whole host of things. After the baseline survey, after the program is started, we send follow up surveys that ask whether they've heard the program, whether they can identify characters and names, whether they can identify characteristics of each character, etc."

Besides these methods, Mr. A's organization puts questions into health surveys, has hired an evaluation officer, done focus groups and does ongoing process evaluations of existing shows, if the money is available. "We started encouraging people to write us with answers to certain questions and at the same time give us their feedback on the program...and we are now getting about two hundred and fifty letters a day from listeners. To put that in perspective in the context of the famine, the cost of a postage stamp is the equivalent of buying two eggs, so the level of involvement that these people have, to sit down and write us a letter, is extraordinary; they are not the average listener."

Mr. A related a story from India, where letter writing is strongly encouraged. One radio serial received a letter signed by fifty-eight villagers saying that they were all giving up the dowry system as a result of the program.

Similarly to Mr. B (Hobble Indians), the community associated with Mr. E's (Little Town) very small station communicates their needs and desires directly to the volunteers that run the foreign language broadcasts, to the board of directors and to Mr. E himself. "But we just have anecdotal stuff. We know for a fact that our audience is growing, I'm quite sure...Maybe they tell my board members or tell other people who have lived here for a long time and I find out. It's just, you get more comments on specific things that you have done...I know we're past the point where we had no idea if anybody was listening."

CHAPTER FIVE

Summary, Conclusions and Recommendations

Summary

Educational radio, commonly referred to as public or community radio in the United States, operates under a broad range of guises, both here and abroad. It may be targeting non-English speakers on issues relevant to their culture, Native Americans who want to resurrect their heritage, college students who do not relate to classical music, Tanzanians on issues related to reproductive health or the general public on politics, health or the size of the universe.

The men and women who direct educational radio and who participated in this study, use a wide range of tactics to convey their messages, but they are singular in their thinking about one aspect of its successful transmission. The listeners/learners must be respected for what they already know and what they desire to know. No educational effort can operate apart from the needs of the learner. These directors all agree with the theories of adult nonformal education as espoused by Knowles (1984), Houle (1972) and others in the field of adult education.

In this study, five radio station directors were interviewed about those segments of their programming that could be defined as educational and how they integrated them with non-educational portions of their broadcasts. From the results of these interviews, four major themes emerged that reflected the study's concern with educational radio and adult nonformal education. These themes were: understanding the radio listener as an

adult learner, the dynamic balance between programming and funding, balancing education with listener interest and the importance of listener assessment.

The conclusions and recommendations that follow were drawn from the content of the interviews as well as the literature that spoke to educational radio and nonformal adult education.

Conclusions

Using radio for educational purposes is a foreign concept to most in the Western World. Radio is perceived as a vehicle for entertainment and information. However, many educationally oriented radio stations, renamed public or community radio today, actively seek to assess a community's educational needs and meet some of those needs over the airwaves. Both in the United States, and more so in the developing world, there is a need for more consistent and thoughtful educational programming through radio.

Conclusion: Education through radio needs to be relevant and timely, speaking to issues that matter in the present moment. Theoretical topics do not appear to be appropriate for educational radio.

All of the interviewees indicated a strong correlation between the needs and desires of the targeted listeners and the programming that they defined as educational. Whether it was more structured learning, as in teaching English to immigrants or more open-ended learning, as in a discussion with state legislators, the information conveyed had to be directly relevant and necessary to decisions or experiences in the lives of the listeners.

This conclusion would confirm the understanding of Knowles (1984) about adult learners, which states that adults are motivated to learn as they experience needs and interests that learning will satisfy and adults' orientation to learning is life-centered.

Conclusion: Funding for educational radio both determines and measures the content of the programming. As either listener supported or donor supported entities, education radio stations can only exist in so far as they meet the demands of the listeners or donors and can not operate independently of either.

In the case of Mr. A's Women's Issues Project, the programming was determined by the mission of the organization. That mission, to educate on issues of reproductive health and other rights of women, was heavily supported by individual donors from the United States who recognized and supported WIP's work in the developing world. Although there was latitude about methods of education, there was no compromising the mission. In order to expand or change its educational outreach, WIP would be required to rewrite its mission and solicit new monies for that endeavor.

For those stations that were heavily dependent on local listener financial support (both of the college stations) the link between daily educational programming and listener receptivity was a very close one. Mr. D described the close watch kept on the money raised during any one program as a key indicator of the program's success or demise.

Conclusion: For educational radio to be successful in meeting its goals, the programming must be produced with an intimate knowledge of the

listeners/learners and their needs, genuine creativity and a passion for the material being conveyed.

As described by Mr. A (overseas), educational radio is very successful when listeners "fall in love with' characters in radio drama, identify with their concerns and see behavioral changes that lead to results which the listeners either discover they want or have always wanted but appeared unattainable. For these radio drama characters to be so motivating they must be created by writers who know the culture, resonant with its deepest values and truly desire to see necessary changes brought about by the drama.

In the case of the foreign language programs written by the immigrant community of Little Town, the people themselves were passionate about what was conveyed, not only to their fellow immigrants but to the outside community, and they necessarily understood the issues to be addressed. Their present life, as foreigners unable to speak English, demanded a high level of commitment from the broadcasters to overcome the myriad problems of living in a new country.

For Ms. C and her community college station, both large financial losses and a small listening audience in a highly competitive market, forced the programmers to completely revamp both the educational aspects of the broadcast and the entertainment arm. It required a new staff committed to a new vision and a unique approach to educational radio music such as adult alternative.

Mr. B and the Hobble station experienced ever widening interest in Hobble language and history as a direct result of the BINGO game approach. The game was initiated by and continues to be developed by community members who receive no financial rewards, but personal satisfaction at the renewal of the Hobble language.

Conclusion: Educational radio is at its best when the educational programming is intertwined with and subjugated to entertaining or highly motivating material that stands in its own right as fun or appealing.

That which is of educational value is inherently interesting to those who are asking the questions. The adult learner actively seeks the information which will satisfy his intellectual, emotional or physical needs. However, that doesn't mean the adult learner will tolerate information presented shoddily or haphazardly. Knowles (1984) summarized this concept when he stated that "experience is the richest resource for adults' learning." The adult learner will not accept that which does not respect his previous experience and knowledge and does not treat him as a partner in learning. Educational material is "boring," because it assumes either too much or too little about the learner.

All of the interviewees understood that they had to keep interest very high in order to have the listeners available for the educational programming. Mr. A (overseas) understood that value-laden behavior only changes because of a strong emotional identification with the educators (in his case, the radio characters). Ms. C (community college) recognized that young adults felt understood by adult alternative music. Mr. D (large college) discovered that storytelling had an attraction which he had not anticipated and Mr. E (Little Town) saw the immigrant community take charge of their own learning in their native-language programs. Mr. B (Hobble Indians) discovered much more interest in Hobble affairs and history as a result of a successful and entertaining language

broadcast. In each case, the learning took place in a milieu that expressed sympathy for the learners as people with their own lives and ideas, not as receptacles of information.

Educational radio, mixed with entertainment in some form, says to the learner/listener, "You have a life, you have other things to do with your time and we have to make it worthwhile for you to spend some time with us!"

Conclusion: Determining the success of educational programming and identifying the unknown needs of the listener/learners requires formative research, person to person contact, large scale surveys and a measure of intuition.

For most of the organizations interviewed, regular timely listener surveys were required to maintain funding. However, none of the interviewees put much weight on the results of such surveys. They were very attuned to the favorable ratings of programs, but discovered more about listener reactions from emails, telephone calls and volunteer responses. The larger the scope of the programming, the more the organization depended on surveys, such as Women's Issue Project. The smaller programs, such as the Little Town station, had a tendency to rely on personal contacts for the bulk of their analysis and their understanding of future program needs.

Recommendations

Recommendation: The successful educational radio programmer needs to be more oriented towards education than business or broadcasting. He/she has to understand why and how adults learn prior to concerning themselves with selling or promoting a program.

As Houle (1972) has stated, "Education is a practical art." The programmer of educational radio will only succeed with a genuine knowledge of the art of education. The interviewees who were primarily concerned with education, such as Mr. E in Little Town, Mr. A with WIP and Mr. B with the Hobble Tribe all described their endeavors in relational terms that indicated the high priority they gave to understanding the needs and attitudes of the listeners they were trying to reach.

Education is often discussed in derogatory terms, as the last hold out for people who can't find work elsewhere. Radio education, as much as any form of education, gives evidence to the skills required to understand, educate and maintain a group of listeners/ learners for an extended period of time.

Recommendation: Public radio, once called educational radio, has redefined itself to the point of having very little educational content. Local stations need to make a greater effort to survey their communities and produce programming that is locale specific and meets the expressed needs of the community.

Most public stations, under pressure to keep broadcasting twenty-four hours per day, resort to purchasing nationally produced programs like All Things Considered. These programs may be, and usually are, high quality and thoughtful. Never the less, they are not geared to the needs of any particular area and therefore don't necessarily meet the needs of the listening audience (as in the case of Little Town playing classical music). To return to its roots, public radio needs to target their listeners and create more programming that meets the expressed needs of the communities they serve.

Public radio programming has established a precedent of asking very little of their communities except money. A shift in focus to greater community input would require a long-term commitment on the part of the broadcast personnel. The communities would need to experience satisfaction from public stations that respond to community needs on a regular basis.

Recommendation: Radio drama could and should be used effectively as a source of education.

With the tremendous success of the Women's Issues Project in changing behavior of its listening audience and with the desire of both the Little Town and Hobble stations to do drama, it seems clear that radio can be very effective tool to transmit absorbing and meaningful drama. In the age of broadband and television, it seems that most of our creative resources are spent on enticing greater use of television and computer. As we lament the negative effects of the lifestyles these produce, one hears little but resignation from those who desire a change. If creative and financial resources were put into alternatives like radio drama, we could change how children dream, play and live. Radio, like reading, requires much greater use of the imagination on the part of the participants, and an active engagement in the process. In accepting a limited and ever smaller vision for radio, we do our children and ourselves a disservice.

Those who produce children's educational programming need to set their sights on the use of radio drama as an excellent source for children's development. It incites the imagination, touches the heart and is wildly cheaper than other forms of technological communication.

Recommendation: If "donor" nations are to effectively assist developing nations in their overwhelming educational tasks, educational radio needs far greater research, personnel and financial backing.

Wherever radio has been utilized intelligently for educational purposes, the evidence shows genuine, significant success in achieving educational goals, from reading to science to women's issues and beyond. Going back into the 1980s, radio communication experts saw a weakening of the will of universities and governments towards educational radio. The Western world's obsession with sophisticated technology caused a blindness to the effectiveness and cost efficiency of mass education using radio and listening groups.

Today, with the advent of satellite radio and its endless reach over any terrain, the use of radio for education is at a new turning point. Millions of rural and nomadic people could be reached who are presently unschooled or in need of additional education. Between the wind-up radio and satellite transmission, no village or group is too poor or too far to be reached.

Yes, it takes professional program and curriculum planning, and it usually requires students to have coordinated materials in their hands. However, previous to that is required a vision for education through radio for all the millions who are without electricity, telephone lines or any modern amenities that the West considers a basic human right.

Present conditions give us no reason to assume that the rural poor in the developing world are going to live in improved circumstances throughout the coming

decades. Accepting that, educational radio could be the technology to initiate changes in their lives and bring the opportunity for true development.

Recommendation for Further Research: Determine if there are programs around the United States that actually do schooling using radio and measure their success.

In the Little Town station, Mr. E was in the process of writing a grant to produced English as a Second Language broadcasts for the immigrant community. The experiences of educational radio in the developing world have shown that language and reading instruction are highly effective using radio and coordinated written materials that the learners possess. This could easily be used in the United States for those failed by the school system or the many immigrants who are desperate to learn English in adjusting to life in the United States.

Recommendation for Further Research: Determine the success of the educational radio programs in the developing world to provide evidence to donor nations for the need to increase funding and support for educational radio.

As the literature has made clear, radio is not viewed as a tool of education by the West, therefore most of our educational money is used to support computer-based education. From the perspective of numbers of people served and numbers with the greatest need, computer-based technology only benefits those who already have access to education and those in the urban areas. The vast majority of illiterate and poor are in the rural areas and without access to any technology, except radio. These people, who could be taught not only reading and writing, but important information about health and food

production, have the most to gain from an expansion of the educational radio system in their countries.

Recommendation for Further Research: In attempting to contact radio station directors in the developing world, telephone contact at an early stage might increase the likelihood of a response.

The experience of this study would indicate that email may lead to an initial contact, but it does not appear to lead to completion of any communication. Although at least six contacts were made in Africa, not one of those actually led to a conversation about educational radio.

Recommendation for Further Research: Successful contacts for educational radio in the United States are more likely to be found in minority focused communities.

Both the literature and the experience of this study would indicate that radio stations involved with communities with a high percentage of minorities tend to focus on the present educational needs of their communities. More mainstream "community radio" tends to broadcast information that is generally recognized as educational, but not targeted to the local community.

Postscript

My interest in educational radio arose as a result of contacts I made with fellow students from Africa. The students came from Rwanda, Zimbabwe and Kenya. Each had been involved with extension work in their countries and said that radio was clearly the tool of choice for effective and far-reaching extension education. This led me to pursue information on what was, for me, a wholly new concept in education.

My initial understanding of the effectiveness of educational radio along with its limited use, led to a sense of frustration. In pursuing the literature, I have been given an appreciation of the work being done, particularly outside of the United States, on educational radio for the developing world. In Canada, Britain, Belgium and other countries, there is much more written about the benefits of radio for education, particularly at this time of satellite radio and it expanding frontiers.

The United States appears uniquely stubborn in its lack of support for educational radio, in spite of the evidence of its effectiveness in South America, Africa and India. From my perspective, we have fallen into the trap characteristic of us, believing that faster, more expensive and more complicated is better.

Talking to programming directors from different parts of the United States was very enlightening. I have had no previous experience with radio, and brought no deep convictions about what I would discover. Those stations that were associated with what has been described as a "carrier of modernity," a college, were most likely to view education as that which covered the most politically correct ideas. Those stations that

were closer to "da people" appeared to have a much greater commitment to the needs and thoughts of the people they served, such as the Hoopla Tribe.

Also, those who really wanted to make a difference in the lives of their listeners understood deeply the power of storytelling and wanted to see it done in radio drama. I have always had great respect for the significance of storytelling in any culture and am motivated to pursue this idea of radio drama in the future.

I am a person who believes that communications technology is running far ahead of our ability to adapt to it as a society. We no longer hold the keys to the culture; technology calls the shots and we jump. I believe radio is a more person-centered and much cheaper means of communicating that hopefully will not be forgotten in the race to wire the world. This study has helped me to see alternatives to our computer dependence.

APPENDICES

APPENDIX A

Invitation to Participate Letter

July 15, 2003

Dear Program Director,

My name is Rory Hoipkemier and I am a Master's of Science candidate at Michigan State University pursuing my degree in Extension Education with a specialization in International Development. I will be conducting research about the use of radio as a medium for nonformal education both in the United States and abroad. Your station appears to have education as one of the key components of its mission to the community it serves. My interest is uncovering the various ways in which your station determines the needs of your audience, creates programs to meet those needs and then analyzes the results. I am interested in making information available that could assist future programmers in educational radio.

If you choose to participate, I will either conduct a telephone interview, at your appointed time, which will take from thirty minutes to one hour. (The session could be divided into shorter time slots if you so choose.) Or, I will send the questions by email and you could answer them electronically at your convenience. Interviews will be conducted between July 1 and July 31, 2003 or may proceed into August if necessary. Telephone interviews will be tape- recorded; all responses and station identities will be kept confidential and reports of research findings will not permit association with specific responses or findings. Once the data has been examined, all tape recordings and emails will be destroyed or eliminated. Your privacy will be protected to the maximum extent allowable by law.

Your participation in the study is completely voluntary. You may choose not to participate at all, may refuse to participate in certain procedures or only answer certain questions or may discontinue the interview at any time. You indicate your voluntary agreement to participate by sending back the contact information with agreement to participate at the bottom of this email.

If you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact, anonymously, if you wish, Dr. Ashir Kumar, Chair for the University Committee on Research Involving Human Subjects (UCRIHS) at Michigan State University, 202 Olds Hall, East Lansing, MI 48824, phone (517) 355-2180, fax: (517) 432-4503, email: ucrihs@msu.edu.

Thank you in advance for your participation in this study. All participants will receive a copy of the study results upon its completion. If you have any questions about this study, please contact the investigator of the project: Dr. Joseph Levine, 408 Agriculture Hall, MSU, East Lansing, MI 48824, phone (517) 355-6580 ext. 220, fax (517) 353-4981 or email, levine@msu.edu .

Sincerely, Rory Hoipkemier

APPENDIX B

Agree to Participate Letter

Contact Information and Agreement to Participate

I _____voluntarily agree to take part in the interview by Rory Hoipkemier regarding educational radio.

My organization is _____
Street Address_____
City_____State_____
Country_____
Zip/Country Code_____Telephone _____
Email Address_____

Possible dates/times for a telephone interview that would be convenient for me between July 1 and July 30, 2003. (or later if necessary)

1) July_____, 2003 at _____ am/pm (my local time)
2) July _____, 2003 at _____ am/pm (my local time)
3) July _____, 2003 at _____ am/pm (my local time)

I prefer to answer the educational radio questions via email by putting my name here:
_____

Returning this email or fax with detailed information indicates my voluntary agreement to participate.
Today's date is:_____

Return email address: rhoipkemier@juno.com
Fax: 517-484-0068 in the United States

APPENDIX C

Interview Protocol

Interview Questions for Radio and Nonformal Education

1) Who began the radio station and what was its mission?
2) When did it begin ?
3) How is it funded?
4) Has funding changed and if so, in what ways?
5) Are there restrictions associated with the funding, and if so, what are they?
6) Where are you located?
7) How far are your programs transmitted?
8) How many professional telecommunication specialists staff the program and what are their roles?
9) Are volunteers working with you both technically and in the community?
10) What are the volunteer roles?
11) How are volunteers recruited?
12) How do you determine programs that are educational as opposed to informational and commercial?
13) What percentage of the programs are education, entertainment, public information, news and commercial?
14) In what way does the community give input to the content of your educational programs?
15) How often is this done? In what way(s) is it done?
16) Is your listening audience able to be measured in some way? How?
17) If the audience is not measurable, can an increase or decrease in listeners be determined?
18) Can you give an example of a short-term goal of your educational programming and how you decided on that topic?
19) Can you give an example of a long-term goal of your educational programming and how you decided on that topic?
20) How have you been able to determine whether or not your programs have resulted in tangible changes in your listeners?
21) Given your experience, please describe methods of measuring output that have changed over time to improve your programming.

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