

Radio as an Educational Tool in Developing Countries: Its Evolution and Current Usages

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"...silent open learning is defective."

Hillary Temple (as cited in Rowntree, 1996, p. 108)

1.0 Introduction: (Radio Broadcast: Its History of Evolution)

Radio developed in the 20th century and initially it found very few listeners. Radio broadcast began in locations such as Detroit and Pittsburg. In 1922, there were 30 radio station transmitters, and by the year 1942, it had become a part of the day-to-day life of the people. According to Folarin (as cited in Okwu et al., 2007), radio has always been a favoured medium of mass communication as it is easily understood by the laymen and the intellectual alike. It also acts as an effective tool of instruction as it can overcome the barrier of distance and reach the larger audience quickly. Educational radio gradually gained popularity because it was seen as a powerful tool to support education by supplementing printed texts with technology. The British Broadcasting Corporation (BBC) for schools in 1920 broadcast educational programmes on radio. The first adult education programme to be broadcast on radio was a talk released by BBC in the year 1924.

In India, radio broadcast began with the establishment of "Radio Club of Bombay" in 1923. Gradually, the Calcutta Radio Club, the Indian Broadcasting Company, *Akashvani* Mysore came up. It was in the year 1936 that the ISBC (Indian State Broadcasting Company) was given the name of All India Radio (AIR) (Vyas, Sharma & Kumar, 2002). By the year, 1947 there were six radio stations in India, located at Delhi, Bombay, Calcutta, Madras, Tiruchirapalli and Lucknow. Radio broadcast in India has been used in non-formal education aimed mostly for the school drop outs, illiterate adults, farmers etc. and formal educational broadcast was meant for those pursuing primary, secondary and higher education. In primary and secondary education too, radio was used along with the aid of printed texts.

1.1 Objectives of The Study:

The thrust area of the paper revolves round the evolution of radio as a tool of education- formal and non-formal. The objectives of the study are:

- to trace the rise and growth of radio broadcast as an educational tool
- to outline the use of radio for developmental purpose
- to evaluate the role of radio in ODL in the wake of emerging technologies

1.3 Methodology:

The study is qualitative in nature. It is based on the survey of literature, which are available mostly from the secondary sources.

2.0 Use of Radio as a Developmental Intervention and Its Effectiveness:

In this section, we shall briefly discuss the use of radio in the developmental agenda of the counties, with particular emphasis on developing countries.

2.1 Use of Radio with Specific Agenda: The Case of Farm Radio Forum:

One of the most dominant and widespread examples of the use of educational radio is known as “Farm Radio Forum.” Farm Radio Forum (FRF) was initiated in Canada in 1941, where radio was used as a discussion forum. Subsequently, many developing adopted this model. Canadian Broadcasting Corporation (CBC), the Canadian Federation of Agriculture (CFA) and the Canadian Association for Adult Education (CAAE) were the sponsors of the programme. A decade later, UNESCO was invited to evaluate the programme, particularly to look into its effectiveness on adult education.

The Canada model had a few components, which was unique viz., broadcast and printed materials as a two-way communication and various production techniques (discussion forums, drama, interview, panel discussion). This model was later introduced under the initiatives and sponsorship of UNESCO in India in 1956 and in Ghana in 1964.

The basic educational components of the radio programs for rural forums dealt with the problems of agriculture, rural development, rural education, innovations, self-government and literacy. Such radio forums were also subsequently introduced in many other developing countries.

The success of the FRF lies in the fact that it shaped the approach of the farmers towards their problems and motivating them for rural leadership. As an experiment in adult education broadcast, the FRF aimed to bring the rural farmers of Canada to work collectively for improving their status (Conger as cited in Heden & King, 1984).

2.2 The Case of Radio Clubs in Benin Republic:

In the 1960s, small radio listening groups were formed in the Benin Republic to educate rural peasant farmers of the country. What began initially as a crusade started by Glegnon-Todokoun to prevent the cutting of palm trees of wine later developed into the formation of Agricultural Radio Clubs (Bayo, 2016). Apart from the “Radio Clubs,” national and departmental committees were also formed. The village chiefs acted as presidents of the radio clubs. Animators were also used as group leaders. Group discussions were carried out after listening to the broadcasts, and the animators provided reports on group discussions. (Anyanwu, 1978). As an initiative of an adult education programme, the radio clubs aimed for the agricultural growth, productivity and served as a platform to continue to fight against underdevelopment (Bayo, 2016).

3.0 Effectiveness of Educational Radio: Select Country Cases

In this section, an attempt has been made to evaluate the effectiveness of educational radio in the field of education with certain select cases from a few developing countries.

Benin Republic:

After one and a half years of the introduction of “Radio clubs”, an evaluative study was undertaken to assess the effects of the programme on the peasant farmers. Following the evaluative study, various reform measures were undertaken, which also include the formation of a National Committee. In the newer version of the programme, apart from the general education agenda, topics on rural life and general motivation were also taken up. The various components of the programme included messages from the radio clubs, questions and answers relating to the practice of agriculture, and general motivational issues. Subsequent

evaluative study undertaken after a year revealed that rural radio is an effective instrument of information and education among the rural peasants (Anyanwu, 1978). Anyanwu mentions:

[Through education from the radio, the peasants have grown to understand how to work better, even with the use of new implements, which also require new techniques for the development of agriculture. The success achieved in this direction has demonstrated that through collective listening, discussion, and the use of audio-visual aids, the radio can contribute substantially to the process of transformation of agricultural traditions, as well as some social and economic attitudes in general (p. 15- 16).] (Anyanwu, 1978)

Ghana:

Similar to the study in India, a UNESCO funded study was undertaken by Abell et al. (1968) in Ghana to assess the effect of group listening to rural radio forums. Abell et al. conducted their research study on the "Eastern Region of Ghana." For the study, sixty experimental forums were organized in forty villages, while forty more villages were designated as controls. Twenty programmes were broadcast once a week from December 1964 to April 1965 exclusively. Out of the twenty programmes, five programmes dealt with issues relating to the practice of agriculture while the rest took up the issues like family living, national policy, and relationships with government. Each forum met on the day of the broadcast and exchanged ideas on the topic, then listened to the broadcast and discussed it. After the last session, forum members as well as the control group (non-forum members) were interviewed on what they had learned from the broadcasts. The results revealed that forum members learned more than the non-forum members. According to a study (NHD, 2009), radio forums have been successful in encouraging the rural population.

India:

An evaluative study undertaken by Neurath (1959) under the sponsorship of UNESCO made a study on the effectiveness of Farm Radio Forum in Pune, India. He compared 145 forum villages with non-forum villages. The forum lasted for ten weeks with a total of twenty programmes. Each forum had twenty members who came together twice a week to listen to a thirty-minute program on subjects such as agriculture, health, and literacy. Forum members were interviewed before and after the project as were samples of twenty adults from each

of the control villages. Each forum was visited and observed four times during the project. It was found that forum members learned much more about the topics under discussion than did adults in villages without forums. According to Neurath (1959):

[Radio farm forum 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, whereas in the non-forum villages it was negligible. What little gain there was occurred mostly in the non-forum villages with radio (p. 105).]

Jain (as cited in Nwaerendu & Thompson, 1987) also made an evaluative study on the effectiveness of rural radio forums in India. In this study, he selected a number of villages in one area and formed a volunteer group of adult farmers in each of those villages. The groups then listened to a twenty-five minute recorded broadcast on a topic of current rural interest. After the programme, some of the group members followed it up with group discussion, decision-making, or both, while others were assigned no further action. Subsequent tests showed that the groups which listened to the radio programmes and had undertaken subsequent assigned activities revealed more changes in beliefs and attitudes towards innovation than the group of listeners without any further activities. Thus, the study found that subsequent group decision making was an important factor in undertaking a more informed action and working together towards the solutions.

Thailand:

Punasiri and Griffin (1976) made a study to evaluate the pilot project of Farm Radio Forum Pilot project of Thailand. They conducted interviews with specialists, discussions from listening groups, announcements, and answering questions from the groups. The study found that after the radio programme, the two-way flow of information between the farmer and the extension workers had improved. The frequency of farmers' contact with extension agents increased as farmers felt that the agents were trying to provide information directly relevant to their perceived needs. Retention of information and overall learning also considerably improved because of high interest in the content and the reinforcement of messages by various communication channels. Other than the radio programme itself, these channels included literature and field visits by extension agents and technicians.

4.0 Effectiveness of Educational Radio in the Context of Open and Distance Learning: Select Country Cases:

In this section, an attempt has been made to evaluate the effectiveness of educational radio in particular context of open and distance learning with certain select cases from a few developing countries.

Bangladesh:

Bangladesh Open University (BOU) uses radio and television broadcasts and audio cassettes to supplement the printed materials. Evaluative study has shown that learners the quality of the self-learning materials of BOU, radio and TV programs and audio cassettes are good for self-study (Rumble, 1995; Ali et al., 1997 as cited in Islam et al., 2006). However, the effectiveness of the TV and radio programmes has been limited owing to short duration of broadcasting by the government owned TV and radio stations. In addition, frequent power problems also have adversely affected the broadcast of radio and TV programmes. (Islam et al., 2006).

Among other activities relating to distance education, it can be mentioned that Radio Bangladesh, established way back in 1939 now broadcasts 166 hours per day through 4 channels and 8 broadcasting stations. (Creed & Perraton, 2001).

China:

In China, distance education first started as correspondence education in the 1950s. In 1978, the State Council approved the establishment of the China Central Radio and Television University (CCRTVU) with 28 Provincial Autonomous Regional and Municipal Television Universities (PRTVUs). By 1990 this television-university network had already produced 2.31 million graduates and according to 1996 official figures “1.4 million or 24.4 per cent of its 5.8 million students in higher education were studying through distance education” (Perraton as cited in Creed & Perraton, 2001).

India:

In 1982, the first Open University was established is Andhra Pradesh, viz., Dr. Bhim Rao Ambedkar Open University (BRAOU). However, it was only with the establishment of Indira Gandhi National Open University (IGNOU) in 1985 that ODL got a formal recognition and direction in India (Prasanth et.al. 2000; Syed, 2009). India launched its first exclusive educational FM Radio channel- *Gyan Vani* under IGNOU

(Chandar & Sharma, 2003). Radio has been extensively used by ODL institution for its educational activities. *Gyan Vani*. In a study by Gaba and Sethy (2010) conducted among the learners of IGNOU, it was found that the accessibility of FM Radio was 80% which is impressive. It was also revealed that many learners found the Interactive Radio Counselling (IRC) as helpful but only for those who could spare their time. In yet another study of the *Gyan Vani* programmes, Arulchelvan and Viswanathan (2006), found that many of the learners were not aware of the programmes broadcast by *Gyan Vani*. Similarly, the study found that the medium of instruction, course of study affect the use of radio.

Krishna Kanta Handiqui State Open University (KKHSOU), in Assam, has made full use of radio as a tool of education and learning. Besides, *Jnan Taranga*, KKHSOU also offers special educational programme '*Ekalavya*' through radio network as AIR Guwahati and Dibrugarh. Launched way back in 2011, the programme has been aired regularly every Saturday and Sunday from 8.00 – 8.30 p.m. *Ekalavya* programmes are meant for the distance learners as course based programmes are broadcast, also issues of social interests are also being broadcast for the general listeners.

Indonesia:

Indonesia has used radio as a catalyst for development both in primary and higher education levels of distance education. Prominent uses of radio includes: the *Diklat SRP* programme. The *Diklat SRP* is a radio-based primary school teacher's in-service training programme of three-year duration and has a total of 80 credits. This course is used to upgrade teachers to D-II standard. Programmes are broadcast through the State Radio Station twice a day, six days a week and are scheduled for school break time in the morning and repeated in the evening or night. Teachers divide themselves into listening groups and use the twenty-minute broadcast as a starting point for further discussion and activities found in accompanying print and audio-visual materials. Evaluative results undertaken by UNESCO in 1999 show that urban and rural teachers evaluate the programmes positively although the quality of the programmes – such as variation of presentation, appropriate activities and illustrations – needs improvement. The Diploma-II Air has similar qualities to *Diklat* but uses a richer combination of multimedia learning resources – videos, radio broadcasts, and print materials, listening groups and tutorials. (Creed & Perraton, 2001).

Nigeria:

Owing to many social circumstances, radio has remained a natural and effective choice for educating a large section of her population, particularly the nomadic community. Yet, owing to many problems, the country has not been able to utilise its full potentialities. Major constraints include the problem of airtime, skeletal provision for distance education in the National Policy of Education, lack of funding and government monopoly of broadcasting. (Creed & Perraton, 2001). Researchers have suggested that Nigeria would need greater deregulation and privatisation of the communication sector. Another solution would be dedicated educational channels or dedicated time on the Government network (UNESCO cited in *Ibid.*)

5.0 The Case of Community Radio

Community radio stations have been defined as “not-for-profit radio services designed to operate on a small scale and to deliver community benefits. Community broadcasting involves radio by and for the community, be it a physical community or a community of interest” (Myers, 2011). Its distinct character can be summarized as follows:

- It should be run for social gain and community benefit, not for profit.
- It should be owned by and accountable to the community that it seeks to serve.
- It should provide for participation by the community in programming and management. (Myers, 2011)

The term community radio may also be defined by different names. The World Association of Community Radio Broadcasters (AMARC) has given its members the prerogative to define it themselves:

[Community radio, rural radio, cooperative radio, participatory radio, free radio, alternative, popular, educational radio. If the radio stations, networks and production groups that make up the World Association of Community Radio Broadcasters refer to themselves by a variety of names, then their practices and profiles are even more varied.]

The World Association of Community Radio Broadcasters (AMARC) further states:

[Community radio responds to the needs of the community it serves, contributing to its development within progressive perspectives in favour of social change. Community radio strives to democratize communication through community participation in different forms in accordance with each specific social context.] Siriyuvasak, U. (2002).

Thus, what is important in defining the radio service as 'community radio' is that community radio is participative in nature.

5.1 History and Growth of Community Radio in Developing Countries:

Among the developing countries, the first community radio service came up as *Radio Sutatenza*, in Colombia in 1947. This community radio service aimed at rural areas with the emphasis on rural development, liberation, and literacy. Following the Colombia success, the tin miners in Bolivia set up and managed a community radio service in 1949, which also served as a radical alternative to the government. Soon, the radio series was attacked by the military for providing political information and a voice for the oppressed during times of political upheaval.

In the African region, the first community radio station came up in Kenya in 1982. However, only since the 1990s, community radio has seen the real surge in its growth both in Africa and worldwide. In fact, it has grown faster than either state or commercial radio. Community radio is perhaps at its most diverse in Africa: from pastoralist stations in remote deserts, to youth music stations in urban slums.

Unlike the African region, the Asian region has witnessed a slow take off. In South Asia, the picture is dominated by India, which introduced pro-community radio legislation as recently as 2006. Nepal is another recent success story for community radio. Bangladesh and Afghanistan are slowly becoming more positive: Bangladesh approved community media legislation in 2008, and in Afghanistan, there are currently about 35 independently owned community stations in a difficult but increasingly less controlled press environment. However, Pakistan and Bhutan currently prohibit non-profit based community stations, and in Sri Lanka the national broadcasting corporation, the Sri Lanka Broadcasting Corporation (SLBC), operates many local stations with some community radio characteristics but that are rarely critical of the government.

It has been estimated that in the Southeast Asia region, Thailand tops the region's charts with about 5,000 community stations—most of them operating without licenses. In Indonesia, community radio has also taken off rapidly, but the number of stations is in the hundreds rather than thousands. The Philippines counts more than 55 community radio stations independent of government and commercial interests operating outside the cities and using low powered transmitters. Other developing countries in the region, viz., Laos, Burma, Malaysia, and Vietnam continue to suppress community media in varying degrees. By contrast, Cambodia's media scene is relatively free but with only a handful of internationally backed community radios. (Myers, 2011)

5.2 Impact of Community Radio in the Field of Education and other Developmental Areas:

Community radio has come with varied agenda that can broadly be categorised as educational and non-educational. It has been argued that the fundamental value of community radio—when properly done—lies in its “community-ness”: its capacity to speak to and for a group of people to express and enrich their identity. Community radio can often be a catalyst or a rallying point for the community for development (Myres, 2011). Here, we mention a few instances of the impact made by community radio primarily in the field of education, though a few other developmental interventions have also been mentioned.

India:

Research studies to evaluate effectiveness of community radio in India suggest a few positive changes in the field of education and women empowerment among others. For example, *Namma Dhwani* (our voices), is the India's first cable community radio station started broadcasting in Karnataka in 2003. It was launched as a partnership effort of the *Budhikote* community, and NGOs MYRADA and VOICES with financial support from UNESCO. An evaluative study of the *Namma Dhwani* community radio service has highlighted a few positive changes. It enhanced the participation of women in programme making and created awareness among the women listeners about health and sanitation, education, food habits and family system and significant change was happened in the lives of women. It also developed leadership qualities/behaviour among the women listeners. Another popular community radio '*Radio Namaskar*', was launched in Orissa on July 11, 2010 by

Young India, a civil society organization. Evaluative study indicates that the community radio enhanced the four aspects of women's lives, viz., psychological, economic, cultural, political and social. *Radio Namaskar* has increased awareness about the rights of the women, access to information, ability to speak in the public and earning of income (Yalala, 2015).

In India, the concept of community radio is quite of a recent origin. Community Radio became a reality only when in 2002, the Government decided to issue licence to the educational institutions such as universities and technical schools to establish the Community radio for educational purpose. Anna University launched the first Community radio known as Anna FM becoming India's first community radio that was launched in 2004.

In Assam, community radio stations have been launched by the KKHSOU and Institute of Distance and Open Learning (IDOL), Gauhati University. KKHSOU launched its Community radio service "Jnan Taranga" in 2009, but it was formally launched as a regular broadcast only from 2010. Jnan means "knowledge" and Taranga means "wave". Broadcast on air at 90.4. MHz, Jnan Taranga, serves as a platform for the dissemination of knowledge and information to the learners and the general audience. The radio also serves the purpose of providing learner teacher interaction, discussion on important issues and development in the field of education and society or community. Jnan Taranga has been successful in reaching out to a large audience and garnered their immense support despite the fact that its coverage is limited to a radius of 15km. Jnan Taranga is striving for more participatory based programmes. Women based programmes are also broadcast through Jnan Taranga. Some of the programmes aired on Jnan Taranga are Sahitya Chora, Yuva Taranga, Alusona, Angana, Bijnan Barta among others. Sahitya Chora is a programme where works of famous literary personalities are being read out for the listeners. Yuva Taranga caters to the issues of the youth. Alusona, which means "discussion", is a programme, which lays stress on issues of everyday interests. Angana is a woman issues based programme while Bijnan Barta is programme that caters to the interests of science lovers (Lama, 2012). The formats for the programmes are mostly- discussions and interviews.

In 2011, IDOL, Gauhati University launched its campus radio station "Radio Luit" (90.8 FM). The radio is a non-profit initiative taken up

by the Institute to reach out to the faculty members, learners and the community at large. The Radio operates daily for 12 hours within 15km radius of the Campus. The members of the Institute both the students, the staffs (academic), the community members from the local areas near the Campus, participate in the Radio programme. Radio Luit has a programme “Baandhobi” which airs three times a day with issue related to women’s health and nutrition.

Nepal:

Community radio “*Radio Swargadwari*” played an instrumental role in 2005, at the time when fundamental civil rights were suspended during the 15-month regime of King Gyanendra. Studies have shown that despite a public ban on the broadcast of news, Nepali community radios found creative ways to advocate for civil and human rights by broadcasting educational programs about the rights enshrined in the constitution and in some cases by singing the news instead of speaking it. (Myers, 2011)

Tanzania:

Orkonerei Radio Service (ORS) in Tanzania, popularly known as *ORS FM* is a community radio station, primarily reaching the *Maasai* people in Tanzania. An evaluative study of the community radio station mentions some positive changes, which includes: (a) a strengthened sense of identity and culture; (b) improvement in women’s lives through insights and attainment of their human rights; (c) empowerment of the *Maasai* community through information and communication; (d) and improved livelihood in general. The study also highlighted eight specific changes that has been the result of *ORS FM* station. These includes: (a) the ability to speak together, understand, and develop identity through the use of Maasai language broadcasts; (b) preservation and promotion of the Maasai culture and traditions; (c) education of Maasai children, especially girls; (d) increased awareness of (women’s) human rights; (e) improved efficiency in managing livestock; (f) improved governance at all levels; (g) increased action around the environment and conservation; (h) and improved health status, especially among women. (Jallov & L-Ntale, 2007)

6.0 Content Analysis of Educational Radio Programmes in Developing Countries

In this section, we shall try to present a summarised list of the

contents of the educational radio programmes in some other developing countries that have been left out in our earlier discussion. This has been presented in **Table 1**

Table 1: Select Developing Countries and Use of Radio on Educational/Community Development Agenda

Countries	Major Contents of discussion
Botswana	<ul style="list-style-type: none"> For civics education (Byram, Kaute & Matenge, 1980).
Ghana	<ul style="list-style-type: none"> Agricultural problems, problems of family living, national policy, and relationships with government. (Nwaeronu & Thompson, 1987).
Guatemala	<ul style="list-style-type: none"> To promote changes in farming practices and to improve production (Ray as cited in Nwaeronu, & Thompson, 1987).
Kenya	<ul style="list-style-type: none"> In support of correspondence courses (Kinyanjui, 1973).
Mali	<ul style="list-style-type: none"> For literacy training (Ouane as cited in Nwaeronu, & Thompson, 1987).
Mexico	<ul style="list-style-type: none"> For literacy training and other programs (Ginsburg & Arias-Goding, 1984).
Nicaragua	<ul style="list-style-type: none"> For health education (Cooke & Romweder, 1977).
Paraguay	<ul style="list-style-type: none"> To offer primary school instruction (Academy for Educational Development as cited in Nwaeronu, & Thompson, 1987).
South Korea	<ul style="list-style-type: none"> In support of family planning (Park, 1967).
Sri Lanka	<ul style="list-style-type: none"> For family planning and health (Academy for Educational Development as cited in Nwaeronu, & Thompson, 1987).
Swaziland	<ul style="list-style-type: none"> For public health purposes (Byram & Kidd, 1983).
Thailand	<ul style="list-style-type: none"> To teach mathematics to school children (Galda as cited in Nwaeronu, & Thompson, 1987), and for teacher training and other curricula (Faulder as cited in <i>Ibid</i>).
The Dominion Republic	<ul style="list-style-type: none"> In support of primary education (White, 1976)
The Phillipines	<ul style="list-style-type: none"> For nutrition education (Cooke & Romweder, 1977).
Trinidad and Tobago	<ul style="list-style-type: none"> To promote knowledge of breastfeeding (Gueri, Jutsen & White, 1978).

7.0 Concluding Remarks:

Since its evolution, radio has played a pivotal role in the field of education. Radio itself has evolved over the centuries, with varied

radio services, e.g., community radio, narrow cast, internet radio being introduced to the service of the people. However, the basic tenet has remained the same: reaching to the masses at a lower cost. Community radio has emerged as a success in rural India. Community radio has motivated rural women to organise themselves and act collectively. The potential of radio can be harnessed in the field of education and specifically in ODL. The immediacy, the accessibility, the simplicity of the medium etc has the power to sustain its relevance in the educational system. Counselling through broadcast will ensure the positivity in the minds of the learner and will enable to motivate them for their progress. Similarly, interactive radio programmes can open up a dialogue between the teacher and the learner. In our discussion, we have seen effectiveness of radio as an educational tool in many developing countries across the world. A state Open University like KKHSOU can use radio extensively due to its low cost and flexible usages. The University should take initiatives in setting up Community radio station at district headquarters and regional office at Jorhat.

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