# Learning Kiswahili Language by Radio at Distance in Secondary Schools in Nyakach, Nyando District, Kenya

#### Florence Odera

Maseno University, Kisumu, Kenya Odera\_florence @yahoo.co.uk

#### **Abstract**

The purpose of this study was to conduct an in-depth investigation to find out the extent to which school radio lessons are used in teaching and learning Kiswahili Language, and to determine if radio lessons help to improve teaching and learning Kiswahili Language. The study was carried out in 30 secondary schools that represented urban, rural, and suburban areas in Nyakach schools in Nyando district. Purposive sampling techniques was used for head teachers because of their few number, while simple random sampling techniques was used to select 120 Kiswahili teachers. Simple random sampling technique was used in order to give equal chances for the respondents in the population to participate in the study. Data was collected by use of questionnaire and semistructured interviews schedule. The questionnaire was used to collect data from head teachers, while semi-structured interview was used to collect data from Kiswahili teachers. The main findings indicated that teachers valued the use of radio lessons in teaching and learning Kiswahili Language because the helps to improve spoken and written Kiswahili. It provided evidence to confirm previous research findings in developed countries that radio is very effective in teaching and learning languages at distance.

#### Abstrak

Matlamat kajian ini adalah untuk menjalankan kajian yang mendalam untuk memperolehi sejauh mana pembelajaran menggunakan radio di sekolah-sekolah digunakan dalam pengajaran dan pembelajaran bahasa Kiswahili dan menentukan sama ada pembelajaran radio ini membantu pengajaran dan pembelajaran bahasa tersebut. Kajian ini dijalankan di tiga puluh buah sekolah menengah yang mewakili kawasan bandar dan luar bandar di daerah Nyakach dan Nyando. Teknik persampelan bertujuan digunakan untuk guru besar kerana bilangannya yang sedikit manakala teknik persampelan rawak mudah digunakan untuk memilih 120 orang guru Kiswahili. Teknik persampelan rawak mudah digunakan untuk memberi peluang yang sama rata

untuk responden terlibat di dalam kajian. Data dipungut dengan menggunakan soal selidik dan temuduga bersemi struktur yang berjadual. Soal selidik digunakan untuk guru besar manakala temuduga bersemi struktur digunakan untuk mengumpul data daripada guru Kiswahili. Dapatan utama menunjukkan bahawa guru memberi penilaian kepada mata pelajaran yang disampaikan menggunakan radio dalam pengajaran dan pembelajaran bahasa Kiswahili kerana ingin membantu untuk mempertingkatkan percakapan dan penulisan Kiswahili. Ia menyediakan bukti yang mengesahkan dapatan kajian sebelum ini di negara membangun bahawa radio adalah berkesan dalam pengajaran dan pembelajaran bahasa secara jarak jauh.

#### Introduction

Ever since 1896 when the young Marconi, an Italian man at the age of 22 years invented radio technology, educators have made increasing use of it as instructional media. The government of many countries in the world is also aware of the importance and benefits of radio broadcast as medium of classroom instruction at distance. Crissell (1994) points out that radio can span long distances for a mass of students who cannot easily be contacted in any other way. Radio enables a small organisation to entertain, to inform, and to educate thousands of people at the same time in the same way. It offers particular opportunities to educators in developed and developing countries to initiate and encourage curriculum and methodology changes and as a supplementary work of a teaching force.

Radio broadcast to schools have been continuously used in schools and colleges in Britain since 1926. A study conducted by Sharp (1995) that used qualitative and quantitative method to collect data found that schools in Britain use radio to teach school subjects like Music and dance to help improve students social skills; foreign languages such as French, Germany, English, History, Mathematics Technology and Science in secondary schools. Bates (1984) adds that educational programmes in Britain have been employed mainly for improving the quality of the existing educational service. The programmes are meant to provide reinforcement as learning resources. They are also used to meet the special needs of learners and teachers.

Furthermore, the Open University (OU) which was started in 1969, provides distance education at both undergraduate and postgraduate levels and uses educational radio programmes together with correspondence materials. Radio programmes are utilised either as live or as tape-recorded programmes (Laurillard, 1991). Lefrance (1990) also conducted a study in France to examine the potential of audio-tape in teaching and learning in secondary schools. The findings indicated that the use of audio/tape lessons was very effective in improving students language development.

In Sweden, Bates (1984) noted that radio has been used to help teachers to improve their teaching of specific subjects area. Fursslund (1990) also describe a similar study he conducted in Swedish schools to assess teachers use and attitudes towards radio in teaching and learning and the results indicated that radio/audio tape was useful in teaching and learning.

### Using Radio/Audio Tape to Teach Languages

Radio has also been used in the Chinese education system. Yan (1992) conducted a study in 1991 to explore the current use of radio programs for language teaching. The purpose of the study was to investigate the attitudes of teachers and students towards the effectiveness of educational radio programmes in teaching Chinese language at junior secondary schools in Hebei Province of People's Republic of China. The researcher examined the problems surrounding the use of radio in schools using a survey method and two types of questionnaire distributed to a sample of 150 teachers. 74.6% of the participants returned the questionnaire. The finding indicated that 73% of the teachers believed radio was a useful tool for teaching Chinese language in secondary schools. The majority of the teachers 74% supported the use of radio, 77% believed that radio could help to improve learners' language skills. A similar study was conducted in Nigeria secondary schools by Ibiyinka (1989) and the results were more or less the same as those of Yan's (1991).

In Kenya, the systematic development and utilisation of radio broadcasts for schools began in 1960 as a national strategy for improving the standard of education and could also be valuable for the correct teaching of Kiswahili and English languages, to overcome teachers' own limitations in teaching their subjects; and to help students in pronunciation and

understanding of difficult words and with sentence construction. Radio programmes has played a vital role in the teaching of languages i.e. Kiswahili, English, French and German (Thompson, 1982). Radio broadcast to schools have also been used to train B.Ed. degree students at distance to help improve teaching/learning quality of primary, secondary education and to provide out of school education and other subjects. The programmes have been used either live broadcasts or on tape-recording version, because most schools in rural areas face problems with poor radio reception due to harsh weather conditions.

Kio (1990) reports that the impact of tape-recorded programmes has been felt mostly in language teaching in secondary schools. He adds that the use of radio/audio tape lessons have been widely acknowledged as suitable for improving the effectiveness of students' communication skills. This includes speaking, listening, reading and writing skills. Thus, curriculum specialists at the Kenya Institute of Education (KIE) continue to organise workshops, seminars for language teachers especially Kiswahili Language to promote the use of radio/audio tape to help improve teaching and learning Kiswahili by radio. He emphasise the importance of audio-tape in teaching and learning Faisihi ya Kiswahili (Poetry) and noted the usefulness of the radio lessons to improve students performance in Kiswahili at National Examination. Kio (2002) encouraged teachers to order taped lessons of Fasihi ya Kiswahili set books that they can use them to reinforce teaching and learning.

# Importance of Using Appropriate Media to Teach Kiswahili

Mbutha (1996) studied the effect of two instructional methods of students' performance in Kiswahili writing lessons. The researcher revealed that the rate of general learning and instruction of writing skills is markedly higher when students are taught using integrated instructional media approach than when the conventional instructional method alone is used. The use of media such as radio/audio tape would help learners to practice:

- (i) Intensive reading.
- (ii) After listening: Radio lessons provide an interesting way of presenting the lessons that motivates the learners to enjoy reading. Students read more after listening to radio programmes.

- (iii) Intensive and extensive listening: In extensive listening the students attempts to understand the gist of what is heard (over the radio or from teacher) but in intensive listening the students attempts to understand a high proportion of what he hears or certain parts of a texts. Radio reminds students of what they have learnt. It stimulates students' imagination and establishes a new learning environment (Odera, 1996).
- (iv) Repetition on and pronunciation: The students' total concentration must be on listening to the spoken model. Dialogues are often used for repetition work. Effective approach to repetition is to engage the learners in repeating after listening to radio or audio taped voice. Listening to radio improves students spoken language. It creates experiences not easily provided by the class teacher and students enjoy listening to another voice (Odera, 1996).

For over forty years, radio programmes have been used in Kenyan schools and teacher training colleges with full support of the Kenyan Government. This has been due to the belief of the Ministry of Education that radio programmes constitute an important part of the learning and teaching resources in schools and teacher training colleges; and are an integral part of the national curriculum. The Kiswahili syllabus 2002 recommended recorded materials to be used during Kiswahili teaching to help improve the quality of Kiswahili Language (Kio, 2002). The Educational Media Service of the Kenya Institute of Education conduct writing workshops to produce Kiswahili radio lessons on various set books and discuss how to improve the teaching of the subject (Kio, 2002). Teachers and Learners should know that Kiswahili just like any other language, is learnt and its proper use determine one's literacy level. It is a compulsory subject in primary and secondary schools.

However, despite the government's effort towards the improvement of teaching and learning Kiswahili in Kenya schools, there are still problems in teaching and learning this subject across the country. Nyando district in Nyanza is one of those districts where learning of Kiswahili is not yet satisfactory especially in secondary schools in Nyakach. The results of national examination have been dismal over the years Nyando Results Analysis report (2003–2004). It is this state of affairs that necessitated the

need to investigate if schools are using radio broadcast in teaching Kiswahili at distance, its impact to help improve the quality of Kiswahili teaching/learning, and to identify the factors that affects learning of Kiswahili in secondary schools.

#### Theoretical Framework

The potential of radio in teaching and learning language has been recognised in their function to provide a degree of 'realism' in teaching and learning. The researchers and educational broadcasting theorists have acknowledged this idea (Heinich et al., 2000; Holmes, 1993; Sharp, 1995). Heinich et al. (2000), noted that radio provides an inexpensive means for reaching a large geographically dispersed population with standard messages. They observed that radio is flexible medium that can have a powerful dramatic effect with music, discussion and story telling that stimulate the imagination of learners.

One of the challenges that face most language teachers is the selection of the best and most appropriate method and instructional media to use. Previous research into the use of media have shown that most media can perform most instructional functions to a certain extent but that some are better at doing certain things than others (Ellington & Race, 1993). This suggests that a variety of media resources may have to be selected and used for a given lesson or subject topic, with each one doing specifically what it can best do at a particular point. Koumi (1990) noted that there are significant pedagogical reasons for choosing a medium over another. The efforts to select effective media for teaching and learning languages depends on several factors among their availability and accessibility of the medium; appropriateness and the potential for implementing the attainment of stated teaching/learning objectives which should in turn be related to the learners' experiences (Ellington & Race, 1993; Heinich et al., 2000).

Previous scholars Shramm (1977), McAnany and Mayo (1980), Bates (1984) also identified the value of radio in teaching and learning languages. They also noted different aims and objectives of the use of educational radio broadcasting in teaching and learning that included: Improving the quality of education, extending educational opportunities;

improving the quality of classroom instruction; teaching skills, upgrading teachers qualifications amongst others. The other reasons given by scholars for the use of radio include: motivation of learners, providing equal opportunities to schools access to learning resources, to vary lesson presentation and help to break the monotony of the regular classroom teachers voice.

Sharp (1995) noted that objectives like teaching skills were regarded by teachers as being very important for students learning language like Kiswahili. The four communication skills, listening, speaking, reading and writing flow together as children engage in all language activities during the lesson. They listen to the teachers' instruction to their colleague's views, responding by speaking, answering questions, giving their opinions, reading and writing what they have heard or read or to audio recordings, or radio lessons. Therefore, the language art, listening, speaking, reading and writing blend as children enjoy the endless opportunities to communication in teaching and learning situation. During broadcasts, students are given the opportunities to construct a mental picture of events. This help to sharpen their imagination and creativity.

## **Research Questions**

This study was guided by the following questions:

- (i) Are radio sets available in secondary schools?
- (ii) Do teachers use radio broadcast to schools programmes in teaching and learning Kiswahili Language?
- (iii) Why do teachers use radio programmes to teach Kiswahili Language?
- (iv) What is the attitude of teachers towards the use of radio broadcast lessons in teaching Kiswahili Language?
- (v) Do you think Kiswahili radio lessons are valuable to students?

# Methodology

This study adopted descriptive survey design that encompassed both qualitative and quantitative methods of data collection and analysis.

Questionnaires and unstructured interview schedule were the main instruments used to collect data.

The study was carried out in Nyando District. It is one of the twenty districts in Nyanza province. It was curved out of Kisumu district in 1997. It borders Kisumu District to the South West, Rachuonyo to the South and Belgut to the North. The district has a total of thirty public secondary schools. The study took place in all 30 secondary schools in Nyando district. The participants included 30 head teachers and 120 Kiswahili teachers.

Data was collected from the heads of secondary schools by use of unstructured interview that consisted of themes drawn from a review of relevant literature. Unstructured interview was used to collect information from 120 Kiswahili teachers.

Saturated sampling was used to select the head teachers of 30 schools and 30 Kiswahili teachers teaching in form four from each school. The study population and sample are shown in the Table 1.

Category	<b>Total population</b>	Sample selected
Schools	30	30
Head teachers	30	30
Kiswahili teachers	120	120

 Table 1
 Sample framework

#### **Instrument for Data Collection**

The main research tools that were used to collect data was questionnaires and unstructured interview secondary data was collected by examining relevant documents. Data was analysed by use of descriptive statistics. The descriptive analysis was appropriate for this study because it involved the description, analysis and interpretation of circumstances prevailing at the time of the study. Data collected was analysed according to the nature of the responses. Once the coding was completed the responses were transferred into a summary sheet by tabulating. These were then tallied to

establish frequencies that were converted to percentages of the total number. Responses from open-ended questions were recorded word for word and presented using description and numerical data.

### **Research Findings**

## Physical Facilities

Head teachers reported that they had no suitable rooms for listening to radio programmes. They noted that teachers face a lot of difficulties when the students were using the live broadcasts in the school hall. One head teacher said 'the teachers sometimes sat the students outside under a tree but it was difficult to concentrate due to distractions of students moving between classrooms and playing in the field.' A lack of library was cited as a major problem in all schools. One teacher from rural school stated that 'sometimes a teacher could be late for class due to lack of transport so he misses that particular radio broadcast programmes.' Such factors were identified as major barriers to the utilisation of schools radio broadcasts.

## Availability of Radio Sets

Each of the head teachers was asked to indicate whether their institutions had a radio and radio cassette recorder, and to state how many were currently available and in working order. The responses were summarised and presented in Table 2.

Table 2	Availability of	of radio	sets/cassette	tape recorders
---------	-----------------	----------	---------------	----------------

Equipment	Schools	Percentage
Radio sets	24	80%
Radio cassette tape recorders	4	13%
Tape recorders	2	7%
Total	30	100%

Two important points emerged from the figures displayed in Table 1. Firstly there is a considerable differences in the number of equipment available in the various institutions. Secondly, very few schools had a

radio cassette recorders and audio tape recorders. This is even true when the size of institutions is taken into account, because schools with large classes have several streams. This poses a problem during listening period when teachers group the classes together. They all reported the difficulties experienced by teachers during broadcasts due to sharing one radio between several classes. They noted that moving equipment between classrooms or between buildings was a major problem and was time consuming during live broadcasts time. They also cited the danger of equipment reaching another class in time particularly if there was rain.

### Participants' years of teaching experience

The interviewees were asked to indicate the length of service in teaching Kiswahili Language. The results are shown in Table 3.

Years	No. of Teachers	Percentage
0–5	72	60%
6–10	36	30%
11–15	8	10%
16 and above	120	100%

**Table 3** Teachers experience in teaching Kiswahili

The above analysis shows that the 60% of teachers had taught Kiswahili for less than six years and only eight of them had more than five years experience in teaching Kiswahili Language.

# Experience in Use of Radio Lessons

The participants were asked to provide information about whether they use radio programmes in teaching and learning. The results were as shown in Table 4.

Table 4 Teachers' experience in the use of school radio broadcasts

Radio/Cassette Recorder	No. of Teachers	Percentage
Using radio lessons	96	80%
Not using radio lessons	24	20%
Total	120	100%

A total of 96 teachers out of 120 reported using radio programmes in teaching and learning Kiswahili Language.

### Pattern of Using Radio Lessons

All of the thirty teachers who participated in the interview only twenty four reported being regular users of school radio broadcast Kiswahili programme as indicated in Table 5.

Periods	No. of Teachers	Percentage
Five times a week	12	10%
Four times a week	16	14%
Three times a week	72	60%
Twice a week	12	10%
Once a week	8	6%
Total	120	100%

 Table 5
 Pattern of using school radio broadcast

Table 5 demonstrates quite clearly that radio broadcasts to schools have an important place in teaching and learning Kiswahili in schools. Over half reported using radio programmes three times a week and other 40% used the lessons more than once a week. The other analysis indicated that most of the teachers 75% reported using radio programmes twice a week in the form of tape recordings.

## Accessibility of Radio/Cassette Recorders

All of the head teachers reported being able to get radio/cassette recorder whenever they asked for it. Their comments were grouped and the results are displayed in Table 6.

Table 6	Accessibility of radio/cassette recorders

Responses	No. of Teachers	Percentage
Always accessible	25	85%
Rarely accessible	5	15%
Not accessible	0	0%
Total	30	100%

From the above table, it seems as if most of the participants 85% were able to get radio/cassette recorders whenever they wanted. But a few of them (15%) experienced some difficulties in getting the equipment.

## Value of Using Radio Lessons in Teaching/Learning Kiswahili Language

Another objective of the study was to find out whether radio programs were really valuable in teaching/learning Kiswahili Language. The interviewees were asked to state categorical rating of their responses as very valuable, valuable and not valuable. The findings were as shown in Table 7.

 Table 7
 Value of using radio lessons in teaching Kiswahili

Ratings	No. of Teachers	Percentage
Very valuable	84	70%
Valuable	36	30%
Not valuable	0	0%
Total	120	100%

Table 7 indicates that the majority of the interviewees regarded radio lessons to be very valuable. However, when the responses were analysed according to each institution the pattern was different. One common reason for inadequacy was that some programmes repeated what had been taught. But none of the teachers found radio lessons worthless. They all agreed that students learn at least something from listening to radio lessons, although some teachers said that some lessons lacked depth analysis.

For example, one of the Fashihi ya Kiswahili teacher said;

<sup>&</sup>quot;...the set book not analysed properly. The radio presenters just read instead of analysing the topics e.g Kinjikitile and Kusadikia, which the teachers also have, so many teachers are discouragedthey just repeat what you have...'

### Another interviewees argued that;

"...if the producers of radio lessons really want to analyse the book they should see the problem and let the students know how to answer the question instead of just reading..." (sic).

Nevertheless, the overall rating of the programmes by the participants was that they were very valuable as shown in Table 8.

### Reasons for Using Kiswahili Radio Lessons

The participants were asked to explain why they used radio lessons in teaching/learning Kiswahili Language. There was wide variety of answers to this question. Some of the most common reasons are summarised and presented in Table 8.

Answers	Teachers	Percentage
Students get good ideas	42	35%
I use it as supplementary	10	8%
Get new knowledge	18	15%
Motivate students	18	15%
Lessons well presented	20	17%
Use it for variety	12	10%
Total	120	100%

 Table 8
 Reasons given for using radio lessons

Four of the reasons given by the interviewees not in the table refer to subject content: It was mentioned that the programmes include good points related to the syllabus and schemes of work; and that they develop new knowledge, listening skills and pronunciation of words.

The other reasons for using Kiswahili radio lessons were also mentioned. Firstly, that the use of radio lessons helps to motivate students by encouraging them to learn more of Kiswahili novels, because radio makes them develop interest in Kiswahili. Secondly, it also helps to stimulate their imagination.

#### A teacher from rural area said that:

"...You see Kiswahili is a compulsory subject to them: So radio lessons helps to encourage them to like it. Thirdly, they felt radio lessons provide a uniform standard of spoken Kiswahili Language for the whole country through distance learning. Because when the programmes are on air, any student, teacher or other people listening at that time learn something new..."

### Another teacher from urban are noted that;

"...radio lessons provide some relaxation while the students learn..."

### A female teacher said:

"...Radio has music. My students sing together with the radio teacher. This motivates them-even the teachers enjoy listening to the programmes..."

The interviewees emphasised that if radio lessons were well used by the classroom teachers, then through their stimulating sound effects and methods of teaching of the subject content, then programmes could contribute to learning by motivating the students to get new ideas, understand some topics better, and to learn new skills and mastery of points.' They acknowledged that some programmes were very successful in stimulating students to concentrate on the information contained in the lesson.

## Teachers attitudes /views about contribution of Kiswahili radio lessons

The other objective of the study was to investigate the attitudes of teachers towards the use of radio lessons in teaching and learning Kiswahili Language. Attitudes are commonly held to have three essential components or dimensions such as beliefs, feelings and likes or dislikes. The attitude of teachers towards school radio lessons is an important factor in the effective use of radio programmes. The responses and comments from the interviewees were summarised and presented in Table 9.

Responses	No. of Teachers	Percentage
Expanding quality education	32	27%
Increasing new knowledge	13	11%
Improving learning Kiswahili	60	50%
Introducing new ideas	10	8%
Improving teaching methods	05	4%
Total	05	100%

**Table 9** Teachers views about use of Kiswahili radio lessons

## Improving methods of teaching

The overall finding was positive. One of the teachers said that a radio lesson uses techniques so 'I copy the methods and try to teach like the radio teacher.' Another female teacher noted that;

"...radio programmes present new styles and use music and materials we do not have in school. They use techniques like discussion, dialogue and dram which makes the lesson lively." But there were some teachers whose responses were not favourable..."

#### One such teacher said,

"...radio producers just read Kiswahili textbooks instead of analysing them..."

However, most of the teachers regarded radio lessons as well-presented, tackling their subjects effectively and employing appropriate teaching methods. Table 10 summarises the responses.

**Table 10** Teachers' belief about school radio improving methods of teaching

Responses	No. of Teachers	Percentage
Yes, it does	88	74%
Not sure	22	18%
No, it does not	10	8%
Total	120	100%

As can be seen from Table 10, most of the teachers believed that school radio broadcast helps to improve methods of teaching Kiswahili Language.

### Improving learning Kiswahili Language

Teachers were asked to express their views about the use of school radio broadcasts to improve students learning Kiswahili Language and whether they could cite any specific examples when their students' learning was increased or enhanced by listening to school radio broadcast programmes. The responses were varied.

#### One female teacher said;

"...when I came to this school the girls were not speaking in Kiswahili Language because they did not know, but since I started using radio lessons they can now express themselves in Kiswahili. The other participants cited several instances in which radio programmes had contributed to students learning Kiswahili grammar..."

They noted that radio uses many different resources so they (teachers) relay on them and use the lessons as a source of additional information. But some of the teachers did not believe that radio programmes helps to improve students' learning Kiswahili Language. They argued that programmes are limited in scope and lasts only for twenty minutes in a day. A male teacher argued that some students do not listen to broadcasts or even to tape recorded programmes so we cannot just assume that they learn. May be at the end of the lesson some students will benefit. However, the majority of the teachers had a positive attitude the use of radio lessons in teaching and learning Kiswahili Language, and strongly agreed that their children benefited and performed well in KCSC Kiswahili examination. Table 11 gives a clear picture.

Table 11	Teachers attitude towards use of radio lessons to
	improve Kiswahili

Responses	No. of Teachers	Percentage
Strongly Agree	68	57%
Agree	42	35%
Not sure	4	3%
Disagree	6	5%
Total	120	100%

Table 11 shows that 110 (92%) of the participants agreed that radio lessons helps to improve teaching and learning Kiswahili Language in secondary schools. Only 10 (8%) were not positive about the capability of school radio broadcasts to students improve learning Kiswahili Language.

#### Conclusion

The purpose of this study was to investigate the extent to which school radio broadcast was used in teaching and learning Kiswahili Language in Secondary schools in Nyakach schools, in Kenya. Most of the schools used radio lessons three times a week while some schools were not regular users of school radio lessons. Although some little differences emerged in pattern of, the overall findings indicated that the majority of teachers regarded radio lessons to be very valuable and helped to improve methods of teaching Kiswahili Language. The participants also cited instances in which radio lessons had contributed to students learning Kiswahili Language and were convinced that the use of radio helped the learners to speak and write good Kiwahili Language. However, there still remain the questions of provision of physical facilities suitable for good listening environment. Therefore, additional research is required to address the issue of effective classroom implementation problems identified in this study such as negative attitudes of some teachers towards radio lessons, lack of suitables listening rooms, lack of radio cassette recorders and pattern of utilisation of radio lessons. None of the interviewees found radio lessons worthless.

#### References

- Bates (1984). Broadcasting in Education: An Evaluation. London: Constable.
- Crissell, A. (1994). *Understanding Radio*. London: Methuen.
- Ellington, H. & Race, P. (1993). *Producing Teaching Materials. A Handbook for Teachers and Trainers*. London: Kogan Page.
- Fursslund, T. (1990). *Television and Radio in the Compulsory Schools. Teachers' Use and Attitudes*. Stockholm: The Swedish Broadcasting Company.
- Heinich, R. et al. (2000). Instructional Media and the New Technologies of Instruction. New York: Mcmillan.
- Holmes, et al. (1993). Radio Education in Nepal. In Perraton H. (ed). *Distance Education for Teacher Training*. London: Routledge.
- Ibiyinka, O. (1988). A Study of the Use of Radio and Television in Ondo State Nigeria. M.Ed. Dissertation. University of Wales.
- Kio, N. (1990). Educational Media Service. Lecture Notes to Secondary Schools Teachers. Nairobi: Kenya Institute of Education.
- Koumi, J. (1990). Media comparison and development: A practitioners' view. *British Journal of Educational Technology*, 25(1), pp. 41–57.
- Laurillard, D. (1991). The Value of Broadcasting for Distance and Non-Distance Learning. Programme on Learner Use of Media. London: Open University, 13, pp. 12.
- Lefrance, R. (1990). The use of sound cassettes in the French system of higher education at a distance. *Educational Media International*, 27(4), pp. 220–240.
- Mac Anany, E.G. & Mayo, J.F. (1980). Communication Media in Educational for Low Income Countries. Implementation for Planning. Paris: UNESCO.
- Mbutha, I. (1996). *Language Policy in East Africa*. Nairobi: Kenya Africa Educational Research and Publication.
- Odera, F.Y. (1996). School Radio Broadcasting. A Case Study of Its Use in Selected Institutions in Nyanza Province, Kenya. MPhil Thesis. Aberystwyth: University of Wales, Aberystwyth.
- Sharp, C. (1995). Viewing, Listening. The Use and Impact of School Broadcasts. Berkshire: NFER.
- Shramm, W. et al. (1977). The New Media. Memo to Educational Planners. Paris: UNESCO.
- Thompson, R.H.J. & Mugiri E.M. (1982). Educational Media. Kenya Institute of Education Handbook. Nairobi: KIE.
- Yan, S. (1992). The Use of Educational Radio in Teaching Chinese Language. MPhil Thesis. Aberystwyth: University of Wales, Aberystwyth.