

**FACTORS AFFECTING USE OF RADIO BROADCASTING IN PUBLIC PRIMARY SCHOOLS IN THARAKA NORTH DIVISION, THARAKA DISTRICT**

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**ABSTRACT**

The Introduction of Free Primary Education (FPE) in Kenya in 2003 as a measure to attainment of the Millennium Development Goals of Education (MDGs) posed a challenge to education quality especially on teacher capacity to handle the ‘swelling’ classes (Odera, 2005). The use of radio programmes was seen as a remedy and supplement to the inadequate number of teachers and learning resources.

This study was carried out to find out the challenges pupils and teachers encounter while using radio broadcast in schools. The study focused on clarity of radio sound, language used by the radio teacher, the speed of the radio teacher and the subject differentials in teaching the radio lessons. The study further explored the challenges faced by subject teachers in the implementation of the radio program.

The study used ten (10) percent of the population, which were six (6) randomly sampled public primary schools in Tharaka North Division. Through purposive sampling, twelve (12) class teachers were sampled for the study. The study purposively sampled classes seven (7) and eight (8) for the study. Information from respondents was collected using questionnaires and interview guides. Data was analyzed by use of descriptive statistics.

Results indicated that radio sound was clear and posed little challenge to the students. The language used by the radio teacher and the speed of the radio program were found to be a challenge to pupils in the division and thus a hinderance to the effectiveness of the program. The study recorded different proportions in terms of subject utilization of the radio programme. A large proportion (74.5%) of learners reported to have been taught Kiswahili using radio program as opposed to mathematics’ (45.1%).Lack of lesson support materials and hence scheming for the radio program by teachers were found to be a real challenge with a few teachers (36.0%) scheming while some teachers (38.7%) confessed of not receiving the support materials necessary for scheming for the radio lessons. Inadequate learning space and lack of support from school administration were identified as other challenges.

**Key words:** Radio broadcast, Radio program, Radio teacher

**INTRODUCTION**

Education is key to any country’s economic and social development (Maliyamkono, 1999). It is a major source of human capital which is essential to sustained economic growth. However many countries in Africa have continued to experience shortage of teachers despite high pupil enrolments in schools. This not only leads to overworked and demoralized teachers but also over utilized educational facilities; hence lack of quality education (Okumbe 2001,Lockhood and Veerspoor

1991). Consequently, the government of Kenya has endeavored to promote the quality of education in Kenya by enhancing teaching. It is on this note that radio broadcast to schools was introduced.

First educational radio broadcasts were transmitted by the British Broadcasting Corporation (BBC) in the year 1924 in North America and Western Europe. Emile and John (1980) observed that the educational radio broadcast greatly boosted education especially in Europe which lacked enough trained teachers and also had insufficient teaching and learning resources. Owing to its potential of improving the quality of education by reaching many pupils using a single radio programme, radio broadcast attracted the attention of international agencies including the United National Educational Science and cultural Organizations (UNESCO) and the Canadian International Development Aid (CIDA) who offered to fund it in Africa (Sydney, 1974).

By 1970, Canada co-worked with the Nigerian government on a schools broadcast project through the Canadian University Services through the Kaduna Television. The radio programmes were designed to teach English to the primary schools (Sydney, 1974).

In Kenya, radio broadcast to schools was started in the year 1960 as a division of the Ministry of Education. It was a strategy for improving the standards of education, to increase access to education, and extend educational opportunities beyond the school through distance learning. In 1966, the Kenyan government received six experienced Canadian teachers. These experts began working with Kenya Institute of Education (KIE) in preparing radio broadcasts over the Voice of Kenya (VOK). Sydney (1974) observes that radio lessons targeted primary and secondary school learners and teacher training colleges. Schools received teachers' guides and course pamphlets for lesson preparation free of charge.

Educational Broadcasting in Kenya was expanded into Educational Media Services (EMS) in 1976. Later EMS was absorbed into KIE which continued to air the programme through the Kenya Broadcasting Corporation (KBC) (formerly known as VOK). Due to high charges of airing educational programmes, KIE could not meet the expenses adequately and KBC stopped airing the programme in 1995 (Edwin, 2007).

Radio broadcasts to schools were later restarted in 2003 following the introduction of Free Primary Education (FPE) in the same year. This was necessitated by the high enrolment rates witnessed in schools, lack of enough trained teachers to handle the large number of pupils and also lack of adequate physical facilities and learning resources (Odera, 2005). This study was carried out to find out the challenges teachers and students encountered while using radio broadcast lessons in school, after its re-introduction in 2003.

to teaching dates back to 1966 when the ministry of education partnered to produce and air radio broadcast lessons to Kenya primary and secondary schools through the voice of Kenya (VOK) (Sydney, 1974). The governments introduction of free primary education in 2003 led to influx of learners to schools hence a crisis since teacher employment had been frozen in 1997 (Odera, 2005). To curb this problem, the government impetuously revived and intensified use of radio programmes in Kenyan schools. Schools were supplied with world space radios which were effective in transmitting radio programs and cost-effective in maintenance.

Supplementing teachers with radio programmes was not only meant to improve the quality of learners but also teachers in their work. However use of radio programmes in schools posed a new challenge to teaching. Teachers countrywide complained of language barrier particularly the use of English as a medium of instruction in rural areas, inadequate preparation by the subject teacher to facilitate the radio lessons; among other challenges facing the radio lessons in schools.

### **Objectives of the study**

- i. To find out the challenges faced by pupils in the implementation of the radio program

- ii. To determine if there were subject differentials in the implementation of the radio program
- iii. To find out the challenges faced by the subject teachers in the implementation of the radio program.

**Research questions**

- i. What are the challenges faced by pupils in the implementation of the radio program?
- ii. Are there any subject differentials in the implementation of the radio program?
- iii. What are the challenges faced by the classroom teachers in the implementation of the radio program in schools?

**Significance of the study**

The study will provide information on challenges teachers face as they use radio broadcasts in school. The information will enable education administrators to address the challenges effectively hence enabling more teachers to effectively teach using the radio. Study findings will act as feedback to developers of radio programs, informing them of utility of radio lessons and incurred challenges.

**Limitations of the study**

Limited literature was available on use of radio lessons in schools. The attitude of teachers and students to use of radio for teaching and learning could also affect the validity of this study. To guard on validity, the study used triangulation of research instruments.

**Delimitations of the study**

The study was carried out in public primary schools in Tharaka North Division in Tharaka District. Generalisations of research findings to other regions in the country should may not be done or may be done cautiously as effectiveness of radio programs differ from one region to another .

**Research methodology**

Descriptive survey design was used. According to Frankle and Willen (1993) descriptive survey studies are concerned with what people think and what they do. This research design was therefore suitable in establishing the factors affecting use of radio broadcasting in public primary schools in Tharaka North Division.

**Target population**

According to Gall and Borg (1989) population is all the members of real or hypothetical set of people, event or objects to which a researcher wishes to study. This study targeted all the 59 public secondary schools in Tharaka North Division represented by the 59 headteachers, the 118 teachers for class seven and eight ;and 2569 pupils of classes seven and eight.

**Sampling techniques and sample size**

The sample consisted of six randomly sampled public primary schools in Tharaka North division. Twelve class teachers were sampled for the study. By purposeful sampling, the study sampled classes seven and eight for study. Five randomly sampled students from class seven and eight were sampled from each of the six schools hence a total of sixty (60) pupils.

### Research instruments

Pupils' questionnaire, headteachers' questionnaire and teachers' questionnaire were used to collect data. Interview schedule was used to interview the District Education Officer. Instrument validation was done by the experts in the department of educational planning and administration from the University of Nairobi. Reliability (0.78) of the questionnaire was determined by split-half method. Data analysis was done using descriptive statistics. The help of statistical professional social sciences (SPSS) computer package was also sought.

### Research findings and discussion

#### *Challenges faced by pupils in the implementation of the radio program*

To determine the challenges faced by pupils in the implementation of the radio program, respondents were asked to rate the level of difficult of the language used by the radio teacher, clarity of the radio sound received and the speed of the radio teacher in presentation. Frequency counts and percentages of the responses are recorded in table 1, table 2 and table 3.

**Table 1: Level of difficult of radio-teachers' language**

Level	Frequency	Percentage
Very difficult	10	13.3
Difficult	31	41.3
Fair	20	26.7
Easy	10	13.3
Very easy	4	5.3
<b>Total</b>	<b>75</b>	<b>100</b>

Majority of the respondents (over 54%) rated the radio teacher's language as difficult. This contradicts Hayter (1974)'s findings- listening which contributes to the process of learning, is a function of the level of the language used by the facilitator. Using a language not of learners' level implies that there was almost no communication to them hence no learning. More so, many pupils in rural schools lack proper command of the English language of which the study locale is no exception.

**Table 2: Clarity of the radio sound**

Clarity	Frequency	Percentage
Very clear	38	51
Clear	34	45
Almost not clear	3	4
Not clear	-	
<b>Total</b>	<b>75</b>	<b>100</b>

An overwhelming majority of the respondents (96%) agreed that the radio sound was clear and hence audible. This is partly owed to the geographical location of the area under study. Tharaka North division is generally located on a mountainous terrain therefore radio waves are received well in the region. However a few schools are located on the rare valleys in the region and in such cases, radio sound was not very clear.

**Table 3: Speed of the radio teacher in presentation**

Speed	Frequency	Percentage
Very fast	15	20
Fast	42	56
Average	18	24
Slow	-	-
<b>Total</b>	<b>75</b>	<b>100</b>

Majority of the respondents (76%) agreed that the speed of the radio teacher was fast. Only 18(24%) of the respondents were comfortable with the speed of the radio teacher. Therefore, if the language used by the radio teacher was not of learners level (Table 1), and the teachers' speed was high, then little or no learning could be taking place through the radio.

***To determine if there were subject differentials in the implementation of the radio programme***

Respondents were asked to state the subjects, taught through radio programme and how often each was taught. Their responses are presented in the figure below.

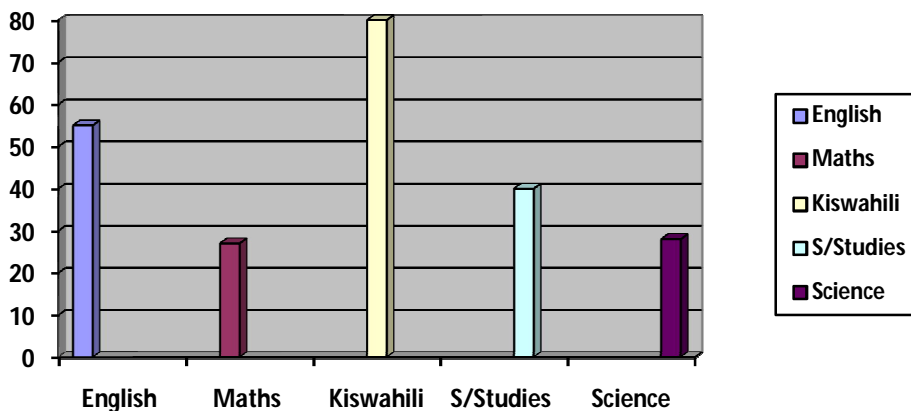
**Figure 1: Subject differentials in the implementation of the radio program**

Figure 1 shows that Kiswahili was often taught to learner's (80%) through the radio followed by English (52%), social studies (40%), science (38%) and mathematics (35%). This shows that Kiswahili radio lessons were more utilized than the other subjects.

Kiswahili language is known to be close to all *Bantu* languages, among which is Tharaka language. Therefore the Kiswahili radio lessons were found to be enjoyable to learners even without facilitation of the subject teacher.

Teachers could therefore present the radio to class, introduce learners to the lesson and be least engaged in lesson facilitation. When the lesson is over, one of the learners could return the radio to the office.

English is a foreign language adapted by the government of Kenya as its official language (Rok, 2010). It is the language of instruction in the Kenyan schools and learners are introduced to it at an early age. However learners in rural areas find a problem in mastering the language and its use as opposed to their counterparts in urban areas where English is a language of communication, both in school and out of school. In Tharaka North, learners in upper classes still needed some facilitation by the English teacher during the English radio lessons for better understanding of the lesson. Unlike Kiswahili, learners could not follow the lesson on their own. The demands of the lesson, saw some teachers prefer to keep off the lesson or teach his/her own lesson as schemed.

Mathematics and science are practical based subjects. Radio lessons on these subjects can hardly be understood without teachers' facilitation. Utilization of radio lessons on these subjects highly depended on teacher Preparation lack of which meant no radio lessons on the same; hence a big loss to the students.

***To find out the challenges faced by subject teachers in the implementation of the radio programme***

Respondents were asked to state the challenges encountered by teachers in the implementation of the radio program. Their responses were tallied and ranked as shown in table 4.

**Table 4: challenges encountered by teachers in implementing radio programs**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Lack of lesson support materials	29	38.7
Inadequate learning space	12	16
Scheming for radio lessons	27	36
Lack of support from school administration	7	9.3
<b>Total</b>	<b>75</b>	<b>100</b>

The results show that lack of lesson support materials (38.7%) and scheming for radio lessons were major challenges encountered by teachers in the implementation of the radio programs. Lesson support materials (radio-programme timetable and teacher's guides) are sent by the Kenya Institute of Education to Schools. They are meant to enable the incorporation of the radio lessons' timetable into the school teaching timetable and guide the teacher on planning the learning activities for the radio lessons. Lack of lesson support materials implies failure of teachers to plan (scheme) for the radio.

This could be partly contributed by delay of the support materials to reach the schools (owed to the vast distance of the schools from KIE), non payment of postal charges hence closure of school postal boxes or untimely picking of letters and parcels from the school postal boxes; consequently, this effects leads to exclusion of radio lessons from the teachers' schemes of work (which are normally prepared at the start of the term) and the school timetable.

The results also indicate that inadequate learning space (16%) was a challenge to the teachers in implementing the radio program. Some schools have more than one stream in either class seven or eight. Since the school has one radio for learning, the students are required to move together and learn from one class. Classes, being built in line with the provisions of the ministry of education (specified class size for specified number of students) means that the learners must sit in a squeezed manner as others keep standing in order for all to access the radio-teacher. This environment distracts learners from the lesson, makes concentration difficult and hard to maintain class control. The teacher can hardly watch on each pupil hence limited gain from the lesson.

The school administration had the responsibility of not only ensuring availability of radio learning materials but also encouraging teachers to actively support the radio lessons; and most importantly, organizing for radio repairs, safety of the radio and availability of source of power for radio-use. Source of power was a major challenge to the implementation of the radio programme in Tharaka North Division.

**Conclusions**

The study found the radio teacher's language to be a challenge to the pupils. The radio-teacher's language of presentation was found to be difficult-above the learners level. The radio-teacher's

speed of teaching was also found to be a challenge to learners. The teacher was found to be fast for the learners. However, the radio sound was found to be clear in most schools.

In terms of subject differentials, respondents reported to have had more Kiswahili radio lessons than other subjects. This is partially owed to the language factor (Kiswahili is more close the learners' mother-tongue and therefore much understood) as compared to English- a language used to teach all other subjects other than Kiswahili. The respondents enjoyed learning Kiswahili radio-lessons and effort was made to avail the lessons to the learners frequently.

Mathematics and science were found to have the least number of lessons (radio) presented to pupils. According to the study, lack of lesson support materials and failure to scheme by the subject teachers were major challenges encountered by teachers in the implementation of the radio program. Inadequacy of learning space was also a challenge to teachers as well as lack of support from the school administration.

### **Recommendations**

Radio-lessons should be presented in such a manner that the language of instruction takes into consideration learners' differences hence difference in mastery of the English language. English words used should be well understood by the Kenyan average learner. This will serve well rural populace students and hence meet the objectives of the radio program.

The speed of presentation should also allow the learners to not only grasp the content but also take notes of the lesson taught. The radio-teacher should teach, while pausing to allow learners take notes of content delivered.

The Kenya Institute of Education (KIE) should send radio support materials (timetables and teachers' guide) in a timely manner to reach schools before commencement of the next term. This enables the schools to incorporate radio lessons in their teaching time-table and schemes of work.

The school administration need to support the radio program by availing KIE's sent materials to the school and to the respective teachers in a timely manner, encouraging use of radio lessons in teaching, ensuring the lessons are incorporated in teaching timetable and schemes of work and providing necessary support to the implementation of the radio programmes. Headteachers should also mobilize the school community to raise funds and build a bigger class which may serve both as a learning hall (2 or more classes combined) conference room or common room for any other school activities.

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## APPENDIX A

### Head teachers' Interview Guide

1. Are you aware of the KIE radio programmes to schools?  
Yes  No
2. Do teachers use radio programmes to teach?  
Yes  No
- B) If, are these radio lessons in the block time table?  
Yes  No
3. Are these programmes of any value to the teacher  
a) Yes  b) Not sure
4. As the head teacher how do you encourage teachers to use radio programmes?.....  
.....  
.....
5. What challenges face radio broadcast programmes in your school?  
A) .....  
b) .....  
c) .....
6. What is your office as the head teacher doing to help teachers to overcome the challenges?  
a) .....  
b) .....



## **APPENDIX B**

### **Interview Schedule for the District Education Officer**

1. Do all the schools in your division have radios?  
Yes  No
2. Are you aware of any challenges facing teachers as they use radio programmes to promote the quality of learning in schools?  
Yes  No
3. Has your office held any session with teachers to orientate them on how to effectively use radio programmes to teach?  
Yes  No
5. Have done any effort to evaluate the effectiveness of radio broadcast to schools in your division?  
Yes  No  Planning to

### APPENDIX C

#### Teacher's Questionnaire

1. How often do you use radio programmes?  
Always  almost always  fairly used  almost not   
not at all
2. If yes, how often do you scheme for the radio lessons?  
Always  almost always  fairly used  almost not   
not at all
3. How often do you receive support materials to accompany radio lessons in time?  
Always  almost always  fairly used  almost not   
not at all
4. How do you rate radio broadcast to schools?  
Very Good  Good  Fair good  poor  very poor
5. How do you rate the clarity of the radio sound?  
Very Good  Good  Fair good  poor  very poor
6. According to you, how informative are the radio programmes to the pupils?  
Very informative  informative  fair   
Not very informative  not informative at all
7. How do you rate level of language used by the radio teacher?  
Very simple  simple  fair  difficult   
very difficult
8. Do you think school administration has a significant role to play to enhance the effectiveness of radio broadcast to schools?  
Very significant  significant  fair significant  almost  
not significant  Not significant at all
9. Do you think radio broadcast to schools has been of value to your teaching?  
Very valuable  valuable  fairly valuable   
not valuable  Not valuable at all