AN INVESTIGATION INTO THE USE OF THE RADIO COMPONENT
IN TRAINING INSERVICE PRIMARY TEACHERS

BY

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REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION (P.T.E.)
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DECLARATION

This Research Project is my original work and has not been presented for a degree in any other University.

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This Research Project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This project is dedicated to my dearest husband Philip B. Shitohi who not only encouraged me to take up the course but wholeheartedly took full responsibility of the family in my absence.

To our children: Ketry Isia Joel Mulanda Liza Mukoyia Sharon Buyanzi who with time had to understand that "Mummy Alienda Kusoma" and therefore patiently looked forward to my completion of this study.

My success is ours all.
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My appreciation also go to the Director of the Kenya Institute of Education and the Principal, Kaimosi Teachers' Training College, Mr. B. Uduto for granting me permission to carry out research in their institutions. Thanks also to Mrs. C. Nakitare, Principal of Highridge Teachers' Training College for allowing me to pilot the research in her Institution.
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Similarly, the support of the Inservice Teachers was critical to the success of the project.

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I also wish to thank the Form I and Form II in-service teachers for their cooperation.

GOD RICHLY BLESS YOU ALL.
ABSTRACT

The objective of this study was to investigate into the use of the Radio Component in training Inservice Primary Teachers. Specifically this study aimed to:

1. Find out the proportion of in-service teachers who use the radio component as part of their course.

2. Survey into the use of the radio programmes by in-service teachers.

3. Identify the problems the in-service teachers face in the use of the radio during the course.

4. Study the causes of these problems.

5. Investigate the opinions of in-service teachers towards the in-service radio component.

6. Evaluate the extent to which the objectives set by the Inservice Unit for including the radio component in the in-service course are actually being met.

7. Analyze the findings and recommend strategies for the improvement of the radio component for training in-service primary teachers.

The research was carried out among the P1 and P2 in-service teachers in their first year of in-service running from December 1991 to December 1994. Kaimosi Teachers' Training College was used as a base for the research although part of the research was done in Nairobi.
The type of sampling adopted for the research was stratified proportionate sampling of male and female among P1 and P2 inservice teachers.

The main subjects were teachers from six districts, namely Uasin Gishu, West Pokot, Busia, Elgeyo Marakwet, Kakamega and Bungoma. Other subjects included in the study comprise of:

b) The head or deputy-head of the radio Section of the Education Media Service at the Kenya Institute of Education.

c) The head of the Inservice Programme in Kenya.

d) The Inservice Course Director at Kaimosi Teachers' Training College.

e) Six heads of departments in the subjects currently being taught in the inservice course based at Kaimosi. These included: Professional Studies, Mathematics, English, Kiswahili, Science and Music.

To elicit information from the subjects two instruments were used. The 82 inservice teachers selected responded to questionnaires. The rest of the subjects were interviewed both formally and informally.

The findings revealed that the majority of inservice teachers (84.1%) had at least listened to some inservice broadcasts. The sex variable had no significant bearing on radio use. Both male and female inservice teachers were equally interested in the radio broadcasts; P2 inservice teachers were more keen to listen to radio broadcasts than P1 inservice teachers.
Among the problems that interfered with the broadcasts were poor reception and unsuitable airing time. The inservice teachers were also too busy with school activities to have time for the broadcasts. There was inefficient supply of broadcast timetables. No broadcast support materials were sent to the inservice teachers.

Inservice broadcasts were nevertheless viewed as worthwhile. The radio teachers served as good examples to be emulated. The mode of content presentation was seen as very good.

Various suggestions were made towards increasing the effectiveness in radio use. Among these included, the need for regular evaluation of the inservice radio broadcasts to gauge their success. There was also need for efficiency in the dispatching of broadcast timetables to the schools. Support materials were also recommended to make broadcasts more meaningful. Inservice teachers needed to be set free from teaching in the afternoons so that they could listen to broadcasts.

2.3. Definition of Significant Term
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECLARATION</td>
<td>(ii)</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>(iii)</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>(iv)</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>(vi)</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>(ix)</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>(xiii)</td>
</tr>
<tr>
<td><strong>CHAPTER ONE: INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Background of the Study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Statement of the Problem</td>
<td>6</td>
</tr>
<tr>
<td>1.3 Rationale for the Study</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Research Questions</td>
<td>7</td>
</tr>
<tr>
<td>1.5 Objectives of the Study</td>
<td>8</td>
</tr>
<tr>
<td>1.6 The Significance of the Study</td>
<td>9</td>
</tr>
<tr>
<td>1.7 The Scope and Limitations of the Study</td>
<td>10</td>
</tr>
<tr>
<td>1.8 Definition of Significant Terms</td>
<td>11</td>
</tr>
<tr>
<td><strong>CHAPTER TWO: LITERATURE REVIEW</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Importance of Inservice</td>
<td>13</td>
</tr>
<tr>
<td>2.2 Rationale Behind the Use of the Radio in Inservice</td>
<td>14</td>
</tr>
<tr>
<td>2.3 How the Kenya Education Media Service is Fostering Good Use of the Radio</td>
<td>16</td>
</tr>
<tr>
<td>2.3.1 Objectives of the Education Media Service</td>
<td>16</td>
</tr>
<tr>
<td>2.3.2 Radio Broadcast Timetable</td>
<td>17</td>
</tr>
<tr>
<td>2.3.3 The Use of the Radio by Inservice Teachers</td>
<td>18</td>
</tr>
<tr>
<td>2.3.4 Evaluation of the Effectiveness of the Radio Broadcasts</td>
<td>20</td>
</tr>
</tbody>
</table>
2.4 Various Views on the Proper Use of Educational Broadcasts 23

2.5 Examples of Radio Use in Inservice Programmes in Specified Countries Around the World 26

CHAPTER THREE: METHODOLOGY

3.1 Introduction 34

3.2 Sampling 34

3.3 The Subjects 35

3.4 Instrumentation 37

3.5 Administration of the Research 38

3.6 Data Analysis 39

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction 40

4.2 Analysis and Interpretation of Data 40

4.3 General Information About Inservice Teachers 40

4.4 Information on Radio Use Among Inservice Teachers 44

4.4.1 The Place of Radio Broadcasts in the Inservice Course 44

4.4.2 Frequency of Radio Use 45

4.4.3 Radio Broadcast Timetables 48

4.4.4 Guidance on Radio Use 51

4.5 Information from Inservice Teachers 53

4.5.1 Radio Support Materials 54

4.5.2 Production of Radio Programmes 55

4.5.3 Involvement of Inservice Teachers during the Broadcasts 57
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5.4 Heads of Departments' Views on the Quality of the</td>
<td>57</td>
</tr>
<tr>
<td>Radio Broadcasts</td>
<td></td>
</tr>
<tr>
<td>4.5.5 Problems faced by the Inservice Teachers in the</td>
<td>60</td>
</tr>
<tr>
<td>Use of the Radio</td>
<td></td>
</tr>
<tr>
<td>4.5.6 Preferred Broadcasting Time</td>
<td>67</td>
</tr>
<tr>
<td>4.5.7 Ability to follow Through the Radio Broadcasts</td>
<td>71</td>
</tr>
<tr>
<td>to the End</td>
<td></td>
</tr>
<tr>
<td>4.5.8 Inservice Teachers' Opinion on What Discourages</td>
<td>72</td>
</tr>
<tr>
<td>Them from Using the Radio</td>
<td></td>
</tr>
<tr>
<td>4.5.9 Worthwhileness of the Radio Broadcasts</td>
<td>74</td>
</tr>
<tr>
<td>4.6 The Head of the Inservice Programme</td>
<td>78</td>
</tr>
<tr>
<td>4.6.1 Tape Copying Service</td>
<td>80</td>
</tr>
<tr>
<td>4.6.2 Deputy Head of the Radio Section</td>
<td>80</td>
</tr>
<tr>
<td>4.6.3 The Inservice Course Director</td>
<td>81</td>
</tr>
<tr>
<td>4.6.4 The Heads of Departments</td>
<td>82</td>
</tr>
<tr>
<td>4.6.5 Inservice Teachers</td>
<td>83</td>
</tr>
<tr>
<td>4.7 Suggestions Towards Increasing Effectiveness in the Use of</td>
<td>87</td>
</tr>
<tr>
<td>Radio Broadcasts</td>
<td></td>
</tr>
<tr>
<td>4.7.1 Evaluation of the Radio Broadcasts</td>
<td>87</td>
</tr>
<tr>
<td>4.7.2 Broadcast Support Materials</td>
<td>88</td>
</tr>
<tr>
<td>4.7.3 Tape copying Facilities</td>
<td>89</td>
</tr>
<tr>
<td>4.7.4 Co-ordination and Commitment</td>
<td>90</td>
</tr>
<tr>
<td>4.7.5 Radio Broadcasts</td>
<td>91</td>
</tr>
</tbody>
</table>

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Introduction</td>
<td>92</td>
</tr>
<tr>
<td>5.2 Conclusions</td>
<td>93</td>
</tr>
<tr>
<td>5.3 Recommendations</td>
<td>96</td>
</tr>
<tr>
<td>5.4 Recommendations for Further Research</td>
<td>98</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.11</td>
<td>Order of Factors Hindering Radio Use Among the Male and Female Inservice Teachers</td>
<td>84</td>
</tr>
<tr>
<td>15.12</td>
<td>Order of Factors Hindering Radio Use Among BA and BEd Inservice Teachers</td>
<td>85</td>
</tr>
<tr>
<td>15.25</td>
<td>Order of Factors Hindering Radio Use by Inservice Teachers</td>
<td>87</td>
</tr>
<tr>
<td>9.14</td>
<td>Preferred Broadcasting Time Among Male and Female Inservice Teachers</td>
<td>88</td>
</tr>
<tr>
<td>9.15</td>
<td>Preferred Broadcasting Time Among Inservice Teachers</td>
<td>89</td>
</tr>
</tbody>
</table>

APPENDICES

APPENDIX I: A Sample of an Inservice Course Outline Showing the Content of the 2 Components in Professional Studies

APPENDIX II: Inservice Teachers' Questionnaire

APPENDIX III: Interview Schedule for the Heads of Departments

APPENDIX IV: Interview Schedule for the Inservice Course Director

APPENDIX V: Interview Schedule for a Media Specialist (Radio Section)

APPENDIX VI: Interview Schedule for the Head of the Inservice Programme in Kenya

APPENDIX VII: Introductory Note for the Research Project

APPENDIX VIII: Work Schedule

BIBLIOGRAPHY

Factors that frequently hinder Inservice Teachers from listening to Radio Broadcasts among PAs and PAs. 84
### LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>TITLE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV.1</td>
<td>Showing Sex, Age and Professional Qualifications of Inservice Teacher Trainees.</td>
<td>41</td>
</tr>
<tr>
<td>IV.2</td>
<td>Number of Lessons Taught per Teacher per Week.</td>
<td>42</td>
</tr>
<tr>
<td>IV.3</td>
<td>Showing the Approximate Teacher-Pupil ratio per Class.</td>
<td>43</td>
</tr>
<tr>
<td>IV.4</td>
<td>Frequency of Radio Use Among Female and Male Inservice Teachers.</td>
<td>45</td>
</tr>
<tr>
<td>IV.5</td>
<td>Frequency of Radio Use Among P1 and P2 Inservice Teachers.</td>
<td>46</td>
</tr>
<tr>
<td>IV.6</td>
<td>Frequency of Radio Use Among Inservice Teachers.</td>
<td>47</td>
</tr>
<tr>
<td>IV.7</td>
<td>Showing How Radio Timetables are Received in Each District.</td>
<td>49</td>
</tr>
<tr>
<td>IV.8</td>
<td>Showing When Timetables Were Received.</td>
<td>50</td>
</tr>
<tr>
<td>IV.9</td>
<td>Reception of Topic Guidelines by Inservice Teachers.</td>
<td>53</td>
</tr>
<tr>
<td>IV.10</td>
<td>Frequency of Receiving Support Materials</td>
<td>55</td>
</tr>
<tr>
<td>IV.11</td>
<td>Order of Factors Hindering Radio Use Among the Male and Female Inservice Teachers.</td>
<td>64</td>
</tr>
<tr>
<td>IV.12</td>
<td>Order of Factors Hindering Radio Use Among P1 and P2 Inservice Teachers.</td>
<td>65</td>
</tr>
<tr>
<td>IV.13</td>
<td>Order of Factors Hindering Radio Use by Inservice Teachers.</td>
<td>67</td>
</tr>
<tr>
<td>IV.14</td>
<td>Preferred Broadcasting Time Among Male and Female Inservice Teachers.</td>
<td>68</td>
</tr>
<tr>
<td>IV.15</td>
<td>Preferred Broadcasting Time Among Inservice Teachers.</td>
<td>69</td>
</tr>
<tr>
<td>IV.16</td>
<td>Factors that frequently Hinder Inservice Teachers from Dubbing Radio Broadcasts Among P1s and P2s.</td>
<td>84</td>
</tr>
<tr>
<td>IV.17</td>
<td>Factors Hindering Inservice Teachers from Having Radio-broadcasts Dubbed for Them.</td>
<td>86</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Radio broadcast of a general nature began in Kenya in 1928. Its aim was to educate, inform and entertain. Despite the fact that the radio generally catered for some elements in education, it was felt that certain specific educational needs were not perhaps being adequately met. Nevertheless prior to independence in December 1963, the radio did not feature very much as an important tool in the curriculm. This was due to the colonial mentality towards education, which aimed at preparing pupils to be clerks and office messengers as opposed to giving them skills that would enable them to be self-reliant in job creation. In this type of education the radio was not deemed relevant.

In 1963 the then Kenya Broadcasting Corporation started a division called "Schools Broadcasting Division". The Kenya Education Commission chaired by Ominde which is otherwise known as the Ominde Report was appointed in 1964 to review the Kenya education system.

The Ominde Report (1964: 63) noted that:

The radio provides wonderful means of bringing the outside world into the school in a way never before possible. Other parts of Kenya hitherto remote and also almost unknown come to life over the radio. We regard school radio as a valuable teaching aid and we would welcome an extension of its use.

According to Ominde (1964) almost 30% of serving teachers were unqualified. Teacher supply was observed to be critical and would continue
to be for some time. The Ominde Report (1964: 108) noted.

...the need for having regular training during the holidays for the professional improvement of the untrained teacher.

The total duration of the course was extended to four years.

There was the need for an all-out effort to raise the teaching standards of the untrained teachers. The Kenya Education Commission (1964: 104-105) attached,

...great importance to facilities for education by correspondence in present circumstances and believed that the combination of lessons by radio with an approved correspondence course will greatly add purpose and content to the former and at the same time encourage regularity in home study.

Out of the proposal of the Ominde Report came the decision to use radio and correspondence methods for teacher training.

In 1966 Kenya sought technical assistance from the United States Agency for International Development (USAID) for the establishment of the Correspondence Course Unit (C.C.U.) in the Institute of Adult Studies, University College, Nairobi (now University of Nairobi), Kinyanjui (1984). Top priority was given to courses preparing adults and particularly to the upgrading of primary school teachers.

Inservice courses for teachers started in 1966 and initially lasted two years. They were meant to improve the effectiveness of previously untrained teachers. The nature of the course was such that it had three components namely,

i) Correspondence courses
ii) Radio component

iii) Residential courses held during school holidays.

In 1968 the duration of the course was extended to four years with the same three components. At the end of the course, a certificate was awarded on passing centrally set teacher examinations. In 1969 at the request of the Ministry of Education, the Correspondence Course Unit agreed to cooperate with the Kenya Institute of Education (K.I.E.) in its inservice training course for unqualified teachers. Kenya Institute of Education was made responsible for the Teacher Education and the University of Nairobi for the Correspondence Course Unit. In 1976 the inservice courses came to a temporary halt due to other pressing priorities of the Ministry of Education.

The inservice teacher training programme was re-introduced in 1982, again with the three components:

i) Correspondence Unit.

ii) Radio broadcasts.

iii) Residential component.

The first batch of inservice teachers with a total enrolment of 3,500 graduated in 1985. The second batch was recruited in December 1985 and graduated in December 1988. The third batch was recruited in December 1988 and graduated in December 1991. The present inservice group was recruited in December 1991 and it is due to graduate in December 1994. The inservice course offers all the 14 subjects taught in primary schools. They are offered in a stipulated format.
In the first year - Professional studies, English, Mathematics, Science, Music and Kiswahili are offered. In the second year these same subjects are offered and to them is added - Agriculture, Art and Craft and Geography, History and Civics (a combined course). An examination is done at the end of the second year in subjects which include English, Mathematics, Science, Music, Kiswahili, Art and Craft, Geography, History and Civics (a combined course), Agriculture and Professional Studies are continued to the third year. Religious Education, Physical Education, Business Education and Home Science are also introduced in the third year. At the end of this year an examination from the Kenya National Examination Council (K.N.E.C.) is done. This examination covers both the professional and academic aspects of the course.

There are radio programmes for all these subjects which run concurrently with the Correspondence and Residential Component. The in-service course for teachers also involves practical teaching which is supervised by the field inspectors and the grades attained included in the final examination grades.

The in-service correspondence course was supplemented by educational radio broadcasts. This was due to the fact that the correspondence course clientele had very little access to library books due to the rural setting of the majority. Also, most of them had few personal books to use. But many owned a radio as a principal source of news and information about the world outside their own small community. These created the need for introducing radio programmes then prepared
by the Correspondence Course Unit and broadcast over the Voice of Kenya to supplement the correspondence instruction.

At this point it is worth noting that since the school broadcasting service had already expanded in size and even target audience to include out of school audiences like the inservice teachers, the name "School Broadcasting Service" was no longer suitable and the more suitable title "Education Media Service" was to be adopted instead in July 1976. In the same year the World Bank granted a loan to enable the Education Media Service develop facilities for audio and tapes among others. It was transferred to Kenya Institute of Education to enable it to integrate its radio materials with the books for inservice produced at the Kenya Institute of Education.

There are very few systematic studies on how effective education radio is and especially as concerns the inservice teacher training course. It is the researcher's proposition that effective radio and correspondence instruction can help to correct imbalances in education development not only in the horizontal respect, that is, widening the access to non-formal schooling in less favoured areas but also vertically, that is, enabling people to move through education within the structure of society hence increasing social mobility in society. It is these concerns that have prompted this study.
1.2 Statement of the Problem

The inservice course for untrained teachers is an important aspect of teacher education and yet not much research has been done in this area especially as far as the use of the radio in the inservice programme is concerned.

The radio programmes are broadcast throughout the inservice course. They are seen to give a more continuous approach to updating content. The content aired depends on subjects being taught that year.

The success of the radio programmes does not merely depend on whether the audience have been reached but more specifically on the understanding and acting as needed by the radio teacher. This fact creates the need to gauge the effectiveness of the inservice radio broadcasts.

The inservice teachers themselves are supposed to use the radio as a resource in teaching the primary school pupils and if they themselves do not use it, it is unlikely that they will be able to effectively use the radio in teaching.

Since one of the ways of training the untrained teachers and improving on their quality of teaching is through the radio component, it becomes very important to ensure that the radio is actually being used effectively by the untrained teachers.
1.3 Rationale for the Study

The justification for carrying out this research is brought out clearly in the following discussion.

1.4 Research Questions

This study sought to answer a number of questions listed here below:
5. Investigate the opinions of inservice teachers towards the inservice radio component.

1. How many inservice teachers actually use the radio component as part of their course?

2. Do the inservice teachers face any problems in the use of the radio?

3. What are the problems the inservice teachers face in using the radio programmes?

4. What are the causes of these problems?

5. What are the opinions of the inservice teachers towards inservice radio broadcasts?

6. Are the objectives set by the Kenya Institute of Education for including the radio component in the inservice course actually being met?

1.5 Objectives of the Study

Any research work must have a purpose explaining why it is being carried out. This research aimed to:

1. Find out the proportion of inservice teachers who use the radio component as part of their course.

2. Survey into the use of the radio programmes by inservice teachers.

3. Identify the problems the inservice teachers face in the use of the radio during the course.

4. Study the causes of these problems.

5. Investigate the opinions of inservice teachers towards the inservice radio component.
6. Evaluate the extent to which the objectives set by the Inservice Unit for including the radio component in the inservice course are actually being met.

7. Analyse the findings and recommend strategies for the improvement of the radio component for training inservice primary teachers.

1.6 The Significance of the Study

The study was of value in that it helped show the extent to which the radio component is utilized by the inservice teacher trainees.

It has highlighted the ways in which the radio is used, including the problems faced by the inservice teachers in its use.

The study should help the Education Media Service (Audio Section) see how to improve various aspects of the radio broadcast.

It is intended to help curriculum developers reexamine the place of the radio in inservice, that is, whether the radio is really playing a worthwhile role in the inservice programme.

The study should bring out the importance of constantly evaluating the radio use by inservice teachers to ensure that they are achieving the set objectives.
For example, whether the inservice curriculum developers should improve on aspects of its curriculum such as including the radio broadcasts or not in the inservice course. It should help the Education Media Service seek ways to improve on any problems that will be highlighted in the research related to radio broadcasts. The recommendations brought out should help the Ministry of Education improve where need arises.

1.7 The Scope and Limitations of the Study

Every three years the Ministry of Education and the College of Adult and Distance Education (CADE) trains about 6,000 inservice teachers. Although the researcher would have loved to carry out the research in all the institutions where inservice is held, the unavailability of enough funds and the short time in which the research had to be done were a limiting factor.

The researcher carried out the research among the P1 and P2 inservice teachers in their first year of inservice running from December 1991 to December 1994. Kaimosi Teachers' Training College was used as a base for this research. Represented here are inservice teachers from eight districts namely, Uasin-Gishu, West Pokot, Turkana, Busia, Elgeyo Marakwet, Nandi, Kakamega and Bungoma (1991 Inservice Course Recruitment. ICU/1/12/VOL.VI/191).

The research was limited to six districts namely Uasin-Gishu, West Pokot, Busia, Elgeyo Marakwet, Kakamega and Bungoma.

The investigation into the use of the radio was limited to the six subjects being taught in the present inservice programme. These include Professional Studies, Mathematics, English, Kiswahili, Science and Music.
1.8 Definition of Significant Terms

Correspondence Component

That part of the inservice course that is carried out by written communication between students and a correspondence school.

Education Media Service

That part of the inservice course that is carried out by the media.

This is one of the divisions of the Kenya Institute of Education charged with the production of educational materials as part of multimedia curriculum packages. It has six sections but this research was concerned only with the Radio Section.

Inservice Primary Teachers

Teachers teaching in primary schools who have not obtained recognised professional qualifications and are undergoing an inservice training course.

Inservice Primary Teachers’ Course

A course for untrained teachers for certification purposes.

Inservice Radio Broadcasts

These are educational broadcasts specifically designed and transmitted for inservice teachers by radio.

P1 Inservice Teachers

Untrained teachers undergoing an inservice course for certification as primary teacher Grade I if they complete the course successfully.

This is the highest grade for teachers at primary level.
P2 Inservice Teachers

Untrained teachers undergoing an inservice course for certification as primary teacher Grade 2 if they complete the course successfully. This is the second highest grade for teachers at primary level.

Radio Component

That part of the inservice course that is handled by the radio broadcasts. Teachers may find it very useful to improve the performance of those untrained teachers. In 1980 for this

Residential Component

That part of the inservice course whereby the inservice teachers gather in particular educational institutions usually colleges during the school holidays. They stay there for a period of two to three weeks receiving continuous educational instruction from college lecturers. 

Support Materials

Refers to teachers' guidelines about the radio programmes or lessons such as teachers' pamphlets, wall charts, posters, teachers' notes, among others.

Tape Copying Service

Education Media Service (Radio Section), operates a tape copying service. Through this service an institution or individual can obtain for itself any number of tape copies dubbed free of charge, so long as that institution sends empty cassettes to the radio section and indicates the programme to be dubbed.

Use of the Radio

Putting the radio into operation for meaningful learning.
CHAPTER TWO

LITERATURE REVIEW

2.1 Importance of Inservice

The 1973 Presidential decree for free education in Std. I-IV brought about an increase in primary school enrolment in Kenya from 1.8 million that year to 2.8 million in 1974 (World Bank Report 1975: 5). Because of this increase in enrolment many untrained teachers were hired to help cope with the numbers. A lot of emphasis too, was laid on inservice as a means to upgrade the performance of those untrained teachers. In 1988 for example, the Permanent Secretary in the Ministry of Education disclosed that there were 50,000 untrained teachers throughout the country (Kenya Times 2nd August, 1988: 6, Column 1).

It is important that the growth in inservice teacher training be accompanied by improvement in the quality of teachers produced. This fact had earlier been reiterated by the National Committee of Education objectives and Policies (NCEOP) report which states that:

"...no matter how education is viewed the role and quality of teachers must be given the most critical consideration if the problems related to education and training are to diminish rather than increase with time NCEOP (1976: 106)."

In line with this the 1974-78 development plan stressed that:

Correspondence courses and radio programmes must remain the main vehicles of out-of-school education Kinyanjui (1984: 166).

In line with this view the radio is key in out-of-school education for which inservice is a part. The radio is seen as a very effective tool for tackling the soaring number of untrained teachers recruited as a result
of the influx in school enrolment immediately after independence. Since in-service teacher education is important as part of a move to improve the quality of education in Kenya, it follows that the quality of in-service radio programmes both in terms of production and use needs consideration.

### 2.2 Rationale Behind the Use of the Radio in Inservice

Since the most productive use of school radio requires familiarity with its technical possibilities the Ominde Commission, Ominde (1964: 63)

...urged all training colleges to realise the importance of bringing it into their training programmes.

This recommendation implied that planned and systematic training in radio use was to be a springboard to good use of radio both in teaching the pupils and in individual learning as a teacher.

The radio has been included in in-service because if properly utilized, it can provide one of the means whereby the best teachers available can make the maximum impact in the classroom.

Kinyanjui (1984: 169), has observed that:

Using the radio for the in-service course has added the benefit of exposing untrained teachers into good methods of teaching which they themselves can use.

A regular radio programme can provide that sort of psychological support to the in-service teacher who is far removed from his residential tutor and colleagues. It brings in the human touch. The lecturers cease to
be just printed words on paper and become human beings with identifiable voices. It provides a teacher to be listened to and even highlights "difficult" concepts, which are difficult to discuss in the usual correspondence courses.

In Cables' (1965: 78) words:

The radio is an ideal companion to correspondence. Many of the gaps that occur in communication between lecturer-student by way of written lectures can be closed by the almost personal contact of the lecturers' voice via the radio receiver.

The radio programme reminds the inservice teachers that they are not forgotten in between the residential courses. It gives an enhancement and reinforcement to the programme. It helps the inservice teachers keep up with the course in the absence of the residential tutor. In line with this Cable (1965: 78), says that:

The student in a remote, rural district or an outlying island feels the presence of his lecturer like a personal tutor in his home. The whole course is given a worthwhile vitality conducive to better understanding.

The radio programme is important because it reminds the inservice teacher trainees of the subject matter of their course. Many either because of lack of time to read on their own or due to being scared of correspondence materials can at least be encouraged through the radio programme to read.

The radio programme therefore helps consolidate the information learned.

The radio programmes are also useful in communicating important messages to the students, for example, study guides; whether they have been posted to the District Education Officer or not and whether there are changes in the residential courses' opening dates. In this role the
radio programmes become a link or contact between the student and the
tutor - source of information. A student's inquiry can be answered
through the radio to the benefit of all students.

Beyond this the radio can be used for specific educational reasons,
where aspects of a subject lend themselves to the spoken rather than the
written word. This is true for example, in Language Education where oral
communication and specific aural sensations in music or science are brought
out very clearly by radio.

The radio lessons have therefore been used to supplement, enrich
and highlight correspondence and residential components (Appendix I).

In spite of the weight we have placed on the radio component some
people look at it as an optional part of the teaching package and which
under pressure should be the first thing to be dropped (Jenkins, 1980).
In view of this opinion the researcher revisited the use of the radio
in inservice so that its use might not be termed as "second-hand".

2.3 How the Kenya Education Media Service is Fostering Good Use of
the Radio

The Education Media Service is a section at the Kenya Institute of
Education responsible for ensuring that the primary and post-primary
curriculum is well supported with relevant media.

2.3.1 Objectives of the Education Media Service

For the radio programme to be effective, a clear picture of its
objectives, plan and use must be delineated. The Radio Section of the
Education Media Service aims at facilitating education of the target audiences in those aspects of the curriculum best achieved by radio.

The Radio Section also aims at providing stimulating and motivating experiences which awaken interest and invigorate the imagination of viewers and listeners hence enlivening learning conditions and processes. Added to these is the objective of providing inaccessible expertise cheaply to the target audiences.

Through the radio, the audience was meant to develop listening and visualization skills to facilitate the development of ideas and practices. The radio programmes are not only concerned with imparting knowledge but also skills and attitudes for effective learning.

The radio lessons are therefore expected to achieve certain behavioural ends. If these are not achieved then the validity of the programmes begins to be questioned. It is in light of these objectives that the present study was undertaken.

2.3.2 Radio Broadcast Timetable

In order to achieve the above mentioned objectives a lot of thought and effort need to be put in the preparation of these radio programmes. This should begin with a clearly laid down time table.

The subjects being offered currently in the inservice course are aired. The broadcasting is done on the Kenya General Service Station between 3.20 p.m. and 4.55 p.m. on week-days. The total airtime for the
The Use of the radio by Inservice Teachers

With a detailed radio broadcast timetable it is expected that it will be effectively used by the inservice teachers.

The Education Media Service has the task of identifying methods and techniques of using the radio as a medium that can effectively
implement subject syllabi, identify suitable script writers and appropriate artists to produce the programmes. Indeed variety in presentation is considered very important. Techniques such as dialogues, drama and sound effects all of which are aimed at stimulating the listener and arousing his interest in the lesson are considered. The fact that learners differ in ability, age and socio-economic background is also looked into.

An attempt is therefore made to satisfy all learners by trying to find a common denominator in language, pace of delivery, content and pronunciation among other factors (Nzioka 1983).

To reduce the problems that have been known to hinder learning by radio such as poor reception and delay of broadcast time tables to schools, the Education Media Service made an attempt to alleviate these problems by providing a free tape copying service for all institutions using the radio for learning. Also a system of lending and copying radio programmes was instituted (Nzioka 1983).

In fact in 1983 the Kenya Institute of Education Support Materials' Section started giving cassettes on inservice broadcasts to colleges for the first year students. In 1984 these services were extended to second years. These services were terminated in 1987 due to shortage of funds. The colleges can nevertheless send their own cassettes for dubbing to the Audio Section of the Education Media Service. The audio cassettes were seen as advantageous in that they could be played at the learner's convenience and replayed to clarify certain points among other advantages.
Hancock (1976: 171), brings out the importance of support materials as being:

i) to provide explanatory materials for teachers, telling them what to do before, during and after the broadcast, and also how to get the best results in their teaching.

ii) to provide supplementary materials such as illustrated pamphlets and charts for learners which can be read and referred to before and after the programmes. This can also contain proposals for follow-up activities ranging from topic suggestion to detailed work.

iii) to provide additional class or group materials for occasional, unscheduled use such as films and posters intended either as an extension of work began in the broadcast or as a vehicle for teachers to individualize their work.

If support materials increase the power and range of educational broadcasting as thus seen the researcher sought to consider their availability and use in the inservice programme.

2.3.4 Evaluation of the Effectiveness of the Radio Broadcasts

The investment of funds on programme production and transmission facilities is wasted unless the majority of inservice teachers have dependable receiving equipment and actually use them. Cost-effectiveness is directly proportional to audience size.
The growing and enormous number of radio programmes and support materials being developed necessitated the formation of a Research Unit of the School Broadcasting Service. This Unit was expected to coordinate and consolidate the more extended research and evaluation necessary.

School broadcasting associates were established as an additional measure to enhance and improve utilization, dissemination and feedback activities. Teachers, headteachers, inspectors, administrators and even learners were encouraged to write to the school broadcasting service and make suggestions about the past programmes, current programmes or future programmes to be made, (Kenya Institute of Education, 1991).

Despite these efforts by the Education Media Service a review of literature reveals that although the education broadcasts have been in existence for more than twenty years, no systematic nationwide evaluation has been done to document its effectiveness until 1991, (Kenya Institute of Education, 1991).

Nzioka (1983: 13-14), spelt out some basic factors that determine the success of educational radio. These he indicated as:

Including the training of teachers who sit with the pupils at the receiving end, the quality of the radio programmes transmitted, enthusiastic support by the Education Media Service Staff, commitment to its methodology and belief in its approach and evaluation.

Nzioka (1983: 13), continued to observe that:

If these elements are optimal in schools, educational radio will have overcome a great deal of difficulties.
Nzioka (1983), carried out an exploratory study to investigate the factors that affect learning by radio in primary schools in the sample districts of Nairobi and Machakos. Factors that were investigated into were among others, teachers' awareness of the existence of education broadcasts, availability of broadcast support materials for teachers and pupils, the attitude of teachers towards learning by radio and the quality of the radio lessons.

Radio lessons in schools though not taught were taught in schools. This is because the

The Kenya Institute of Education 1991 Research Report on the evaluation of the effectiveness of school broadcasting in Kenya noted that a majority of teachers were unable to use school broadcasts due to lack of teachers' notes. Those who had teachers' notes felt that they were not up-to-date as the latest copies were of 1982, poor maintenance of the radios, lack of batteries and poor reception were also handicaps. Many teachers were not aware that the Kenya Institute of education repaired school radio sets free of charge provided that the school met the cost of spare parts. It was also observed that very few schools had tape recorders which could help solve the problem of poor reception. In the 256 schools throughout the country in which research was done 78.9% were recorded not to have tape recorders. Only 16% had tape recorders and 5.1% did not respond to the questionnaire (Kenya Institute of Education 1991).

Teachers in all listening schools were supposed to have broadcast time tables to enable them to plan for the radio lessons. The majority (79.9%) reported that time tables were not getting to schools in time. Hence radio lessons were not normally corresponding to the lessons they were supposed to support. Researchers found some radio time tables in
district or zonal inspectors' office showing that the current procedure of distributing radio time tables through district education officers did not seem to be functioning as effectively as it should, Kenya Institute of education (1991: 24).

These facts brought out by the Kenya Institute of Education evaluation of the effectiveness of school broadcasts are important in this research although they relate to primary schools. This is because the inservice radio programmes are included on the same radio timetable that the primary schools use. The inservice teachers also teach in primary schools and it is likely that they face similar problems indicated above if the inservice teachers are facing such problems it is probable that these could affect their own use of the radio in their inservice course. This was concern of this research because it has been noted that effective use of the radio for instruction will depend first and foremost on the users' attitude towards it.

2.4 Various Views on the Proper Use of Educational Broadcasts

The International Council on Correspondence Education (1975) has observed that improvements in technology continue to offer tantalizing prospects and yet the basic issues remain centred in the processes by which the student studies and learns.

The same Council (1975: 34) adds that the following questions should be seriously considered in selecting and developing non-textual material and should recur as subsequent evaluation is made.
Neil (1981: 99-100), has come up with six factors that determine the choice and use of media. Among these are:

Can he utilize the materials (radio in this case) now? How much do they contribute to his mastery of the subject of study? Will they be useful at another stage of his studies or for review or self-evaluation? What might be done to improve the material or the structure and sequence of its presentation?

In the production and use of the radio, the main problem is likely to be the one of producing support materials that are sufficiently linked to the broadcasts. To do this well one needs to be closely involved in the planning and development of the series to ensure that one medium complements another. Jenkins (1980), says that producers seldom see that this is important.

Neil (1981: 99-100), has come up with six factors that determine the choice and use of media. Among these are:

To encourage the students to make good use of supplementary media one must put pressure on them to do so. The best way to do this is to include questions which can only be answered well if they have used the supplementary material that have been provided. Jenkins (1980: 28), further suggests that:

You need to make sure that each medium serves some useful purpose. If not your students will discover this and not bother.

For the medium to be used well we must specifically encourage and direct the students to the use of that medium or component. We need to ensure that we have done enough to encourage the students to use each component. This is especially true when we consider the old saying that "people do what we inspect and not what we expect".

Neil (1981: 99-100), has come up with six factors that determine the choice and use of media. Among these are:
i) **Availability** - this means that the necessary technologies for use of that medium need to be well developed in the country concerned. This implies the need for skilled manpower both for physical requirements and for necessary pedagogy.

ii) **Accessibility** - the medium needs to be accessible to the Distant Learning Institution and to the Learners. The amount of airtime given and the logistics involved to ensure that the audience is reached should be looked into. Accessibility implies that the learners must be able to physically receive learning materials cast in forms suitable for any given medium or delivery system. Well known examples of related inaccessibility are incomplete area coverage by broadcast medium, lack of receivers in learners' homes and unreliable postal services.

iii) **Acceptability** - of the medium of delivery system is also important. Even if a medium is available and accessible the attitudes of teachers or of learners may make its use virtually impossible unless such attitudes can first be changed.

iv) **Validity** - of that medium. The efficiency and effectiveness with which a medium achieves pedagogical objectives of the learning material conveyed by that medium is important, that is, is it appropriate?

v) **The economics or Cost Factors** - involved in choosing and using a particular medium is also worth looking into. Attention to the possibilities for economics of scale and to the costs of materials are often key considerations.
vi) **Organization and Management** - there is need for efficiency in production, delivery system and evaluation. Improper organization would be reflected in an example like failure to take time tables to schools on time. This can cause all the other mentioned factors not to succeed.

The potential of the radio as an educational medium is enormous. The education radio should specialize in those roles for which it is especially suited. Although critics say that the radio appeals to only one of the senses, that of hearing, it can be manipulated to lead to maximum learning. This can include allowing the learner to exercise other faculties as well, such as looking at atlases, writing down words and phrases. This will require the learner's active participation and not his mere passive observation (Cable 1965). Even in the inservice radio broadcasts it is expected that the radio teacher involves the inservice teachers in some activities.

2.5 **Examples of Radio Use in Inservice Programmes in Specified Countries around the World.**

There is a need to examine the use of the radio in inservice programmes in other countries. This can help Kenya identify with other countries in cases of similar strengths and weaknesses and emulate other countries which might provide a better example in the use of the radio in inservice.

The Asian Programme of Education Innovation for Development (APEID) had a representation of 18 countries. This included Afghanistan, Australia, Bangladesh, India, Indonesia, Japan, Malaysia, Nepal, Papua, New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, UNESCO.
Regional Office for Education in Asia and Oceania. There were 18 participants from UNESCO member states who attended the meeting. Five member countries were from Malaysia. These countries identified several problems in the utilization of the radio broadcasts. These included competition with other interests for airtime and non-availability of transmitters for education purposes. These handicaps would no doubt influence the radio audience. Without exception participating countries expressed concern that there was less than optimum usage of the broadcast resource by educators, APEID (1980).

The major obstacles to effective utilization were noted to be an only marginally effective pre-service training in Education Technology at teacher training institutions. There was also noted to be insufficient inservice training especially in rural and remote areas. Insufficient numbers of trained and experienced personnel to develop pre-service and inservice programmes was another problem. Added to these were the difficulties of providing pre-broadcast and other support materials to all teachers because of distribution problems caused by great distances, inaccessible terrain and under-developed communication routes as well as the lack of facilities and resources for their publication (APEID 1980).

Difficulties in synchronising the classroom timetable with the broadcast schedule also featured among the problems. Low signal strengths, interference due to terrain, climate and other technical problems made reception uncertain in many areas. There was also the lack of funds necessary to implement reform programmes for any of these problems (APEID 1980).
All APEID participating countries reported serious deficiencies in teacher usage of media programmes. In all cases these were ascribed to a lack of training facilities and programmes in both the pre-service and in-service situations. It is essential that teacher training institutions should include media usage as a compulsory and significant component of their overall curricular and that education systems provide adequate resources for the continuing and regular inservice training in media, of service teachers and school administrators. (APEID 1980). These observation echoes the Ominde Commission recommendation already discussed in this literature review.

To ensure effective utilization of education broadcast programmes the APEID conference pointed out that it was essential that teachers are adequately trained in the methods of integrating the programmes with their overall learning schedules. Teachers were to be provided well in advance of the transmission date, the objectives and content summary of each broadcast. They were also to be informed of the types and availability of support materials. Efficient receiving equipment was to be available to the individual teacher and was to be maintained in optimum operating conditions. Producers of education broadcasts were not only to participate as consultants at the planning stage but more directly in the implementation stage. It was suggested that newspapers were to be used to publish time tables and other programme information (APEID 1980).

In Nicaragua efforts were made to train the teachers and to support them generally in their use of radio (Jenkins 1980).
In El Salvador teachers were trained thoroughly in the use of broadcast and were closely supervised as they worked in the classroom (Jenkins 1980).

Educational broadcasting units in the Caribbean have been seen to help the teachers in offering good teaching examples. To make the most of education broadcasts in this region, a number of problems have been identified and solutions to them sought. Among these include the difficulties of arranging timetables to match broadcast schedules whose solution has been seen to be tape recordings. Other identified needs have been the need for a more carefully spelt out objective of broadcasting units and a more systematic evaluation of the programmes (Open University Editorial Group 1981).

A unique problem to Nepal which is one of the APEID countries whose general handicaps in the use of the radio have already been enumerated, is the fact that climatic conditions seriously reduce battery life (APEID 1980).

In Thailand, the inservice teacher training by radio and correspondence is the responsibility of the teacher training department of Education Technology. Under the International Development Agency multi-purpose education, the government through the public relations department was expected to establish a new radio network which would ensure good reception, in at least 90% of the country's populated area. This is a move to improve education broadcasting. This network will be used exclusively for transmission of the education programmes. Its airtime estimated to be 18 hours a day was to be shared between Central Education Technology (C.E.T.) for in-school transmission, inservice teacher training programmes and even
Primary Education Development Project is carrying out its inservice teacher training programme that began in 1977. Among the problems faced in this project include the lack of finance to effectively support the programme and the lack of evaluators to assess the worthwhileness and effectiveness of the programme (APEID 1980).

Indonesia Education Radio broadcasting for inservice teacher training programme covers 11 provinces. Its purpose is to support the Primary Education Development Project in carrying out its inservice teacher training programme that began in 1977. Among the problems faced in this project include the lack of finance to effectively support the programme and the lack of evaluators to assess the worthwhileness and effectiveness of the programme (APEID 1980).

Malaysia is one of the APEID countries as already noted. Its problems are similar to those enumerated here as being faced by the other APEID countries. Nevertheless, two problems quite key in the use of the radio here are:

i) the problem in deciding on the scope and depth of broadcasts for inservice training of teachers.

ii) teachers have been known to have negative and difficult attitudes towards the use of the education radio broadcasts.

The present study replicated these and other findings mentioned above.

The Education Media Service in APEID has a plan of supplying audio-cassette recorders to schools. It also intends to produce teacher
Sidibe (1983: 24-29), did an evaluation of education radio programmes for primary school teachers in Mali. His research was carried among 234 teachers. The reasons for not listening to the programmes were expressed as follows:

i) teachers stopped listening to the broadcast for lack of time.

ii) 22 stopped for lack of interest.

iii) 21 teachers argued that they were hindered by ruralization activities.

iv) 8 teachers gave various reasons among them being poor reception of Radio Mali, sports and other activities.

Sidibe 1983, further noted that of those who never listened, 13 teachers lacked the time, 4 teachers had no radio and 18 teachers gave various reasons including timing, poor reception and lack of interest.
among other factors. Out of the 234 teachers, 98 teachers were regular listeners, 24 teachers were fortuitous listeners and the rest did not respond.

In some cases, either the negative or positive reactions received from the radio broadcasts in some countries around the world. It has also shown that various solutions have been sought to alleviate these problems and certain specific steps of implementing some of the solutions to these problems have actually been carried out in a few of these countries.
This research could not generally assume that the lack of use of the radio in some cases, either the negative or positive attitudes towards its use and the existence of some problems in its use implied that the radio broadcasts are ineffective or not worthwhile.

It was therefore of value to examine the use of the radio in the inservice teachers' programme in some districts in Kenya.

Methodology: Part of the research was done in Nandi. This included editing of the questionnaires among inservice teachers at Highridge Teachers' Training College. This was to facilitate the changing and modification of questions. For improvement of the instruments and procedures to be used in the actual collection of data for the study.

This college was not used for the actual study. The researcher also considered it necessary to interview the Deputy Head of the Radio Section and that of the inservice programme in Kenya in order to come up with an all round view of radio use among inservice teachers.

4.1 Sampling

The type of sampling adopted for this research was stratified proportional sampling of male and female among P1 and P2 inservice teachers. This was because the study wanted to find out whether factors such as sex and professional qualifications were related to the use of the radio among inservice teachers. Only 6 of the 8 districts mentioned above were used in the study. These included Uasin Gishu, Busia West, Pokot, Elgeyo Marakwet, Kakamega, and Dungoma. Since the sample was
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This study was conducted using a survey technique. It was mainly based at Kaimosi Teachers' Training College. At this College inservice teachers from 8 districts, namely Uasin Gishu, West Pokot, Turkana, Elgeyo Marakwet, Busia, Nandi, Kakamega, and Bungoma gather every holiday for the residential component.

Nevertheless, part of the research was done in Nairobi. This included piloting of the questionnaires among inservice teachers at Highridge Teachers' Training College. This was to facilitate for changes and modification of questions, for improvement of the instruments and procedures to be used in the actual collection of data for the study. This College was not used for the actual study. The researcher also considered it necessary to interview the Deputy Head of the Radio Section and that of the Inservice Programme in Kenya in order to come up with an all-round view of radio use among inservice teachers.

3.2 Sampling

The type of sampling adopted for this research was stratified proportionate sampling of male and female among P1 and P2 inservice teachers. This was because the study sought to find out whether personal factors such as sex and professional qualifications were related to the use of the radio among inservice teachers. Only 6 of the 8 districts mentioned above were used in the study. These included Uasin Gishu, Busia West Pokot, Elgeyo Marakwet, Kakamega, and Bungoma. Since the sample was
meant to be male and female, Turkana and Nandi districts were left out because they lacked some of those categories.

3.3. The Subjects

(a) Inservice Teachers

From each of the six districts, three males and three females P1 inservice teachers were chosen randomly using the ballot method. These totalled to 36 P1 inservice teachers, who were expected to respond to the questionnaires. Unfortunately one female inservice teacher from West Pokot did not submit in her questionnaire inspite of the fact that the researcher extended the time. Hence, of the 36 P1 inservice teachers expected to respond to the questionnaires only 35 responded.

Since the P2 inservice group was larger than the P1 inservice group the researcher intended to give anonymous questionnaires to 4 male and 4 female P2 inservice teachers from each of the six selected districts. A total of 48 P2 inservice teachers were therefore expected to respond to the questionnaires. Due to unforeseen circumstances, one female inservice teacher from Kakamega district was unable to respond to the questionnaire. That left the total number of P2 inservice teachers who responded to the questionnaire at 47.

In this particular study, the exact ratio of men to women in the population was known. Among the P1 and P2 the lowest number of inservice teachers were females and they are 3 and 4 respectively. Since sex differences and professional qualifications were related to the variables
the researcher wished to test, it was important that a random sample proportionate to the size of sampling unit be used. In order to increase the chances of selecting a representative sample, the total number of females from those districts with the least representation in the female category were used as the criteria. This assured representativeness with respect to sexes.

In all, the grand total of both P1 and P2 inservice teachers that were given questionnaires were 84 out of a total population of 268 inservice teachers from the six districts.

Other subjects included in the study comprised of:
(a) The Director of the Radio Programme and the evening TV Department of Kenya Broadcasting Corporation.
(b) The Deputy Head of the Radio Section of the Education Media Service at the Kenya Institute of Education.
(c) The Head of the Inservice Programme in Kenya.
(d) The Inservice Course Director at Kaimosi Teachers' Training College.
(e) Six heads of departments in the subjects currently being taught in the inservice course based at Kaimosi. These subjects include:

i) Professional Studies
ii) Mathematics
iii) English

iv) Kiswahili
v) Science
vi) Music.
3.4 Instrumentation

Two main instruments were utilized in the research:

i) Questionnaires
The 84 inservice teachers selected were expected to respond to questionnaires. The questionnaire was divided into 3 sections.

Section I: Looked for general information from the respondents such as age, sex, professional qualifications and teaching load. 

Section II: Solicited for information on how the inservice teachers used the radio, for example, what they liked about the radio programmes and the problems they experienced, if any, in using the radio.

Section III: Included open-ended questions that offer respondents more flexibility and a chance to give their opinions on specified aspects in radio use.

ii) Interview Schedules
Both formal and informal interviews were conducted with all the people involved. The respondents were:

(a) The Deputy Head of the Radio Section. 

(b) The Head of the Inservice Programme in Kenya. 

(c) The Inservice Course Director at Kaimosi Teachers' Training College. 

(d) The 6 heads of departments in the subjects currently being taught in the inservice programme based at Kaimosi.
Interview schedules were chosen because they provided quick and spontaneous feedback. They also provided an opportunity for the researcher to interact with the interviewees, discussing at length issues related to the research. These provided a wealth of information relevant to the research. The respondents are given time to produce responses that they think are fairest. Among the questions the interviewees were expected to respond to included whether the inservice teachers were trained in the use of the radio, how they used the radio and if they had any problems in using the radio. The interviewees were also expected to make suggestions towards increasing the effectiveness of the inservice broadcasts.

The 6 heads of departments were also provided with a cassette recording from K.I.E. and a cassette player. They listened to one radio programme in their respective subject areas and commented on any strengths and weaknesses of the broadcasts.

3.5 Administration of the Research Instruments

Permission to conduct research was sought from the head of the Education Media Service (E.M.S.) at the Kenya Institute of Education and from the Head of the Inservice Programme in Kenya. The Principal of Kaimosi Teachers' Training College was also informed of the study and his permission and assistance sought. The Principal's role was important, because he was relied upon to notify the inservice teachers and the heads of departments about the questionnaires and the help that was required of them.
The questionnaires were distributed to the inservice teachers with assistance from one teaching staff at Kaimosi Teachers' Training College. They were requested to fill in the questionnaires while the researcher waited. Prompt filling in of questionnaires rather than waiting for some time was meant to help elicit more natural responses, rather than when the respondents are given time to produce responses that they think are favourable.

The interviews were administered personally after prior appointments were made with every interviewee by the researcher. The interviewees were not required to give their names. They were informed of the purpose of the study and that the information collected from them was to be used purely for statistical purposes.

3.6 Data Analysis

Raw data obtained from the field was coded, tabulated and descriptive statistics such as averages, percentages and frequencies computed. The final report has presented the data in descriptive form. There has been systematic reporting of data in essay form supported by tables, percentages and frequency distributions. This information will be presented in Chapter Four. Data collected has been used to make conclusions and possible generalizations which will be discussed in Chapter Five.
CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The objective of this study was to investigate the use of the radio component in training inservice primary teachers. Data collected has been categorized according to the objectives of the study. The researcher saw it more logical to analyse related data gathered from the questionnaires and interviews together under appropriate headings. This was seen as the best way of giving a wholesome and valid picture of research findings. Handling each different interview schedule and the questionnaires separately would not only have been cumbersome but would have lead to a segmented presentation of research findings.

4.2 Analysis and Interpretation of Data

To facilitate data analysis and interpretation the researcher coded and presented the data using a series of tables depicting frequency distributions and percentages of the responses wherever applicable. Where relevant the researcher had to examine closely the main variables of the research sex and professional qualifications, and find out whether they had a bearing on radio use. Explanations were made after data analyses and these were followed by data interpretation.

4.3 General Information about Inservice Teachers

The inservice teacher trainees who responded to the questionnaires came from six districts namely, Uasin Gishu, Kakamega, Bungoma, Elgeyo Marakwet, Busia and West Pokot.
TABLE VI.1: Showing sex, age and professional qualifications of inservice teacher trainees

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<td></td>
<td>20 - 30</td>
<td>22</td>
<td>26.8</td>
</tr>
<tr>
<td></td>
<td>31 - 40</td>
<td>42</td>
<td>51.2</td>
</tr>
<tr>
<td></td>
<td>Over 40</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>Professional Qualifications</td>
<td>P1</td>
<td>35</td>
<td>42.7</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>47</td>
<td>57.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

N = Respondents

Table VI.1 shows that there were fifty one point two percent (51.2%) male and forty eight point eight percent (48.8%) female in the research sample. The sample was meant to have an equal representation of male and female as intended by the study. The female representation was one point four percent (1.4%) less than male. Two women inservice teachers, one a P1 teacher trainee from West Pokot district and another a P2 teacher trainee from Kakamega district did not submit back the questionnaires due to unknown factors.
Since one of the purposes of this study was to find out whether sex as a variable was related to the use of the radio among inservice teachers, the failure to return the questionnaires was interpreted as probably resulting from the fact that women are more held up by household demands than men. Research evidence to verify this position will be indicated later when analysis of item number fourteen (14), fifteen (15) and number twenty one (21) of the inservice teachers' questionnaire will be made.

**TABLE IV.2: Number of lessons taught per teacher per week.**

<table>
<thead>
<tr>
<th>Number of lessons</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>20 - 30</td>
<td>7</td>
<td>8.5</td>
</tr>
<tr>
<td>31 - 40</td>
<td>49</td>
<td>59.8</td>
</tr>
<tr>
<td>Over 40</td>
<td>25</td>
<td>30.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

N = Respondents

Table IV.2 indicates that most teachers, fifty nine point eight (59.8%) teach between thirty one and forty lessons. This shows that most teachers have an average of eight lessons per day. In primary schools we have eight periods in lower and ten periods in upper per day. This means that the inservice teachers teach either all the lessons in a day or are free for only one or two lessons in a day. It shows that they may not have time to listen to the inservice broadcasts which are aired daily between 3.20 p.m. and 4.55 p.m. on weekdays.
Thirty point five percent (30.5%) inservice teachers teach an average of eight or more lessons per day. These teachers' timetable makes it altogether impossible for them to listen to any inservice programme. Eight point five percent (8.5%) of the respondents have on the average about six lessons per week. If their timetables are arranged in such a way that they teach all their lessons in the morning they could be able to listen to the broadcasts.

Only one point two percent (1.2%) inservice teachers have twenty lessons or less per week. This gives them an average of four lessons per day. They could comfortably listen to the broadcasts. Unfortunately one point two percent (1.2%) is very small indeed compared to the remaining majority of teachers (98.8%) who hardly have time to listen to the broadcasts.

TABLE IV.3: Showing the approximate teacher-pupil ratio per class

<table>
<thead>
<tr>
<th>Teacher-pupil ratio</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:10-20</td>
<td>5</td>
<td>6.1</td>
</tr>
<tr>
<td>1:21-30</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>1:31-40</td>
<td>41</td>
<td>50</td>
</tr>
<tr>
<td>1:41-50</td>
<td>10</td>
<td>12.2</td>
</tr>
<tr>
<td>1:51-60</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The teacher-pupil ratio is usually indicative of how many pupils each teacher has to handle per class. The more pupils a teacher has to handle per class the less time the teacher has for each pupil and for himself. Both item number six and number seven of the questionnaires
were important to the researcher because they were pointers to whether the inservice teachers had any time away from their professional duties to listen to radio broadcasts. The population of pupils in an average class is usually taken to be forty pupils in Kenya.

Table IV.3 reveals that fifty percent (50%) of the inservice teachers had a teacher-pupil ratio of one teacher to between thirty one to forty pupils (1:31-40). The findings revealed that half the teachers had an average class. In fact data shown on Table IV.3 shows that the majority of inservice teachers have a class of about 40 pupils and above. This was a significant pointer to the fact that the respondents may not be having enough time to both effectively carry out the required professional responsibilities to the pupils and also readily avail themselves to listen to the radio programmes.

Only thirty four point one percent (34.1%) of the inservice teachers had a class of 30 pupils or less as indicated on Table IV.3. This data reveals that only a small number of teachers could handle their classes effectively in terms of giving professional guidance to each pupil and at the same time effectively listening to the radio broadcasts.

4.4 Information on Radio Use among Inservice Teachers

4.4.1. The place of radio broadcasts in the inservice course.

The researcher sought to find out the importance of the radio broadcasts in the inservice course. This was because whatever weight placed on the radio broadcasts would determine the commitment the Inservice Programme Organizers and the Education Media Service (Radio Section) would show in ensuring that the radio broadcasts were effective.
An interview was held with the head of the Inservice Programme in Kenya. It revealed that the radio broadcasts were introduced in the inservice course because they were to supplement, enrich and highlight the Correspondence and Residential Components. The interviewee said that the radio served a rather peripheral role which could easily be done away with without any damage to the students' academic growth. The interviewee said he had no direct involvement with the radio section. He was more concerned with the production of correspondence materials for the inservice teacher trainees. The main contribution he made to radio programmes was to sit at a panel discussion at Kenya Institute of Education where the practicability of the three inservice components were being discussed. At this panel the content for the various components such as the radio were agreed upon.

These findings show that although the radio component is one of the three components (Correspondence and Residential) as already indicated in the introductory section of this report, the organizers of the inservice course see it as not very crucial.

4.4.2 Frequency of Radio Use

Table IV.4: Frequency of Radio Use among Female and Male Inservice Teachers.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Always</td>
<td>4</td>
<td>9.5</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Sometimes</td>
<td>28</td>
<td>66.7</td>
<td>27</td>
<td>67.5</td>
</tr>
<tr>
<td>Once in a while</td>
<td>3</td>
<td>7.1</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Never</td>
<td>7</td>
<td>16.7</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>100</strong></td>
<td><strong>40</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

N = Respondents
Table IV.4 shows that nine point five percent (9.5%) inservice teachers always listen to the radio as compared to ten percent (10%) female inservice teachers. The percentage of the female who always listened was slightly higher than male as shown in Table IV.4. The percentage of male who sometimes listened to the radio was sixty six point seven percent (66.7%) as compared to sixty seven point five percent (67.5) of female. The percentage of female who sometimes listened to the radio was again slightly higher as indicated in Table IV.4. Among the inservice teachers who listened to the radio once in a while were a male representation of seven point one percent (7.1%) and a female representation of seven point five percent (7.5%). Those who never listened included sixteen point seven percent (16.7%) male and fifteen percent (15%) female.

Data collected indicate that although the percentage of female who listened to the inservice radio broadcasts is slightly higher than the male percentage, the difference is quite insignificant. This implies that the sex variable does not significantly influence the listening or not listening to the radio programmes.

Table IV.5: Frequency of Radio Use among P1 and P2 Inservice Teachers.

<table>
<thead>
<tr>
<th></th>
<th>P1</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Always</td>
<td>4</td>
<td>11.4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>18</td>
<td>51.4</td>
</tr>
<tr>
<td>Once in a while</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Never</td>
<td>10</td>
<td>28.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>35</td>
<td>100</td>
</tr>
</tbody>
</table>

N = Respondents
Table VI.5 shows that eleven point four (11.4%) P1 inservice teachers listened to the radio always as compared to eight point five (8.5%) P2 inservice teachers. Slightly more P1 inservice teachers listened to the radio broadcasts always as compared to P2 inservice teachers. Among those who listened to radio broadcasts sometimes were fifty one point four percent (51.4%) P1 inservice teachers and seventy eight point seven (78.7%) P2 inservice teachers. Of those who listened to the radio once in a while were eight point six percent (8.6%) P1 respondents as compared to six point four percent (6.4%) P2 inservice teachers.

Data collected reveals that more P2 inservice teachers listen to the radio broadcasts as compared to the P1 inservice teachers. It also shows that more P1 respondents never listen to the broadcasts as compared to P2 respondents. Research evidence indicated that P1 inservice teachers are not as keen to listen to the radio programmes as P2 teachers. Since P1 inservice teachers are training for the highest grade for teachers at primary level they could be complacent with their state. P2 inservice teachers could be feeling more the need to work hard and rid themselves of the social stigma surrounding the title "P2 untrained teacher".

Table IV.6: Frequency of Radio Use among Inservice Teachers.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>8</td>
<td>9.8</td>
</tr>
<tr>
<td>Sometimes</td>
<td>55</td>
<td>67</td>
</tr>
<tr>
<td>Once in a while</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>Never</td>
<td>13</td>
<td>15.9</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

N = Respondents
Table IV.6 indicates that the majority of the inservice teachers have at least listened to some inservice broadcasts. Only fifteen point nine percent (15.9) have never listened to the inservice broadcasts.

Research findings reveal that efforts have been made among inservice teachers to listen to broadcasts. Among the six districts in which research was carried out (West Pokot, Kakamega, Bungoma, Busia, Elgeyo Marakwet and Uasin Gishu) Kakamega and Uasin Gishu had the highest percentage (37.5%) of those who always listened to the broadcasts. The number of inservice teachers who sometimes listened to the radio broadcasts was relatively spread in all the districts. Busia district had the greatest number (46.2%) of inservice teachers who did not listen to the broadcasts among the six districts. Later research evidence will seek to qualify this finding.

4.4.3 Radio Broadcast Timetables

The researcher sought to find out the methods used to dispatch the radio broadcast timetables to the inservice teachers. Broadcast timetables are key in guiding the inservice teachers on the airing of specified subjects.

An interview with the Deputy Head of the Radio Section and the Inservice Course Director revealed that radio timetables were sent to the primary schools through the District Education Office. Inservice teachers were to use school broadcast timetables because it would be very expensive to send each inservice teacher a timetable. Both respondents expressed disappointment with the District Education Office
which seemed inefficient as far as dispatching timetables was concerned. Broadcast timetables were posted late or never at all.

The Inservice Course Director noted that no timetables had been sent to the inservice teachers since 1986. The respondent recommended that broadcast timetables could be posted directly to primary teacher training colleges where they could be appropriately displayed for the in-service teachers' use.

Table IV.7: Showing How Radio Timetables are Received in Each District

<table>
<thead>
<tr>
<th>Timetable Sources</th>
<th>WEST POKOT</th>
<th>KAKAMEGA</th>
<th>BUNGOMA</th>
<th>BUSIA</th>
<th>ELGEYO MARAKET</th>
<th>Uasin Gishu</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Education Office</td>
<td>10</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>12</td>
<td>52</td>
<td>63.4</td>
</tr>
<tr>
<td>Your primary school</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>29</td>
<td>35.4</td>
</tr>
<tr>
<td>Given during the residential session</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not received</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Totals</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

Table IV.7 indicates that sixty three point four percent (63.4%) in-service teachers receive their broadcast timetables through the District Education Office. Thirty five point four percent (35.4%) receive their timetables through the respective primary schools. One point two (1.2%) of the in-service teachers had not received any radio broadcast timetable.
The data collected reveals that most of the inservice teachers copy their timetables from the District Education Office. This is a cumbersome procedure. It indicates that the District Education Office could be inefficient in the dispatching of the timetables. Research evidence nevertheless shows that at least most of the respondents received timetables through whatever means.

The researcher purposed to find out whether the radio broadcast timetables reached the inservice teachers on time to guide them on what was to be aired.

Table IV.8: Showing When Timetables were Received

<table>
<thead>
<tr>
<th>Receiving Pattern</th>
<th>WEST</th>
<th>KAKAMEGA</th>
<th>BUNGOMA</th>
<th>BUSIA</th>
<th>ELGEYO MARAKWET</th>
<th>ASUS</th>
<th>GISU</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>In time</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>27</td>
<td>32.9</td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td>9</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>8</td>
<td>36</td>
<td>43.9</td>
<td></td>
</tr>
<tr>
<td>Very late</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>6</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>15.9</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>82</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table IV.8 indicates that only thirty two point nine percent (32.9%) inservice teachers received timetables on time. The rest received broadcast timetables late, very late or never at all. Table IV.8 also shows that the receiving pattern of timetables varied from district to district. Particularly, it was noted that the district that had the highest numbers
of inservice teachers receiving timetables on time was Elgeyo Marakwet. Among the six districts, Busia district had the highest number of inservice teachers who never received broadcast timetables.

These findings reveal that there is need for efficiency in the sending of broadcast timetables. Data collected also indicate that it cannot be generalized that the District Education Office is inefficient in the dispatching of timetables. Some districts like Elgeyo Marakwet showed some efficiency in the dispatching of timetables than others. Indicated in earlier research evidence was the fact that Busia district had the least number of those who listened to radio broadcasts. Data presented in Table IV.8 shows that Busia district of all the districts had the highest number of those who never got timetables. Without broadcast timetables it is unlikely that these inservice teachers would be keen to listen to the broadcasts.

4.4.4 Guidance on Radio Use

A major objective of this research was to find out any problems related to radio use. In line with this objective, there was need to find out whether prior to the broadcasts guidelines were given to enable the inservice teachers familiarize with the topics to be aired each term.

An interview held with the Head of the Inservice Programme in Kenya revealed that neither guidance on effective radio use nor guidelines on topics to be aired in each subject were given. He expressed the fact that it was assumed that they were aware of how to use the radio for meaningful learning.
Another interview held with the Deputy Head of the Radio Section revealed the same position. Guidelines needed to be in some form of booklet. The lack of funds made it difficult to produce them.

The researcher needing to get a wholesome view on the subject, interviewed the Inservice Course Director and the six heads of departments on the same. The Inservice Course Director said that the inservice syllabi did not cater for instruction on radio use. It would depend on the personal initiative of the tutors to teach on the same. The heads of departments in four subject areas, namely, Mathematics, Music, Kiswahili and Science stated that their respective syllabi did not expect them to instruct the inservice teachers on how to go about the radio broadcasts. The heads of departments (Professional Studies and English) agreed that their particular syllabi expected them to teach on radio use although in relation to primary school teaching.

In the English Syllabus the use of the radio was particularly stressed during "Oral Work". However, due to a wide syllabus coverage, teaching on effective radio use was ignored. It was hoped that the inservice teachers could learn from others in the field how to effectively use the radio. The Head of Professional Studies said that the topic "Good Utilization of the Radio" came in the curriculum section of Professional Studies under the subtopic "Methodology". Although intended to guide the inservice teachers on how to use the radio in teaching pupils it could have been beneficial to the inservice teachers in their own use of the radio, especially if the topic came early in the course. Basic steps to be followed in the use of the radio are generally the same for both levels.
The five heads of departments out of six did not teach the inservice teachers on how to use the radio broadcasts effectively. It was only in Professional Studies where some members of department took initiative to help the inservice teachers on how they could maximally benefit from the radio. They were taught outside the class hours, basically on Sundays.

Research evidence reveals that the inservice teachers' syllabi do not have a section that deals with how the inservice teachers can use the radio in their learning. It was only in Professional Studies that initiative had been made to help the inservice teachers along this line. It is clear that the organizers of the Inservice Programme assume that the inservice teachers know how to get maximum benefit from the radio broadcasts.

4.5. Information from Inservice Teachers

The inservice teachers were asked whether they were given a list of topics to be aired in each subject prior to the termly broadcasts.

Table IV.9: Reception of Topic Guidelines by Inservice Teachers

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>29.3</td>
</tr>
<tr>
<td>No</td>
<td>57</td>
<td>69.5</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>
Table IV.9 reveals that the majority of inservice teachers (69.5%) did not receive guidelines on topics to be aired. Earlier information from the Head of the Inservice Programme and the Deputy Head of the Radio Section indicated that no guidelines were sent to the inservice teachers on the programmes to be aired. The twenty nine point three percent (29.3%) shown on Table IV.9 who indicated that they had actually received broadcast guidelines could therefore have received a general outline rather than specific topics for each week.

The researcher inquired further from the inservice teachers whether they were trained on how to use the radio. Nineteen inservice teachers (23.2%) said that they were trained while sixty three inservice teachers (76.8%) indicated that they were not trained.

Data collected shows that very many inservice teachers are not taught on radio use. This fact could make them not benefit much from the radio broadcasts. These findings agree with views indicated by various people interviewed on the same issue. This shows that no much effort is made to train the inservice teachers on radio use.

4.5.1 Radio Support Materials

The researcher was keen to find out whether materials that are meant to back up the radio lessons such as explanatory and illustrated pamphlets are provided to the inservice teachers to ensure effective utilization of the radio broadcasts.
An interview with the Deputy Head of the Radio Section showed that no Support Materials were sent to the inservice teachers. Their preparation and postage was expensive. The Inservice Course Director also indicated that Support Materials were not sent to the inservice teachers. It was nevertheless indicated that Correspondence Materials had some radio topics included to enable the inservice teachers to know what to read for.

Table IV.10: Frequency of receiving Support Materials

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Sometimes</td>
<td>5</td>
<td>6.1</td>
</tr>
<tr>
<td>Never</td>
<td>76</td>
<td>92.7</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

The researcher sought to find out from the inservice teachers themselves whether they were sent Support Materials or not. It is noticeable that the majority (92.7%) were not sent Support Materials at all. The response of those who indicated that they were sometimes or always sent Support Materials is questionable since the Deputy Head of the Radio Section indicated that no Support Materials were sent to students. The researcher felt that his response was more accurate.

4.5.2 Production of Radio Programmes

The researcher interviewed the Deputy Head of the Radio Section on the qualifications of script writers and readers to gauge the quality of the scripts. The quality of the scripts would be significant pointers to
whether the radio broadcasts would have shortcomings in content relevancy and format of presentation.

An interview with the Deputy Head of the Radio Section revealed that people specialized in different subjects were selected to write the scripts. Each script was censored by a subject specialist, a curriculum specialist, a media specialist and an inspector in that subject area.

After censoring the script was written. It was indicated by the interviewee that guidelines in script writing were given whenever a new person was involved in script writing.

To qualify as a script reader one had to be knowledgeable in the subject thus able to understand what one was reading. The reader needed to have a good voice with an ability to read English well or Kiswahili where relevant. The reader was to pronounce words correctly and clearly. Any person wishing to be considered as a script reader was assessed following this criteria. It was indicated that sometimes persons trained at the Kenya Institute of Mass Communication or the African Conference of Churches/even abroad in the same skill, could be hired.

These findings show that great care is taken to ensure that quality radio broadcasts are produced.

The researcher interviewed the Deputy Head of the Radio Section to find out whether the script writers considered involving inservice teachers during the broadcasts. The response was that it depended on the subject area, topic and the particular content of the lesson. Script writers were aware of this. This was important to increase concentration spun of the inservice teachers.
4.5.3 Involvement of Inservice Teachers During the Broadcasts

The researcher inquired from the inservice teachers whether they participated in the radio broadcasts or merely listened to the radio teacher. Ten inservice teachers (12.2%) said that the radio broadcasts lend themselves to hearing alone. The remaining seventy two inservice teachers (87.8%) said that the broadcasts encouraged them to both listen and carry out certain activities. This response agrees with what was reported earlier by the Deputy Head of the Radio Section. The findings from the inservice teachers confirm the participation of the inservice teachers in the radio lessons.

4.5.4 Heads of Departments' Views on the Quality of the Radio Broadcasts

The researcher had an objective of determining the quality of the radio broadcasts in six subjects currently being taught in inservice from the opinions expressed by the heads of departments. Each head of department was requested to listen to a twenty minutes (20 min.) taped inservice broadcast in their respective subject areas. Taped programmes were preferred because they were free from problems related to transmission. The interviewees could listen to them at their convenience and replay any section not clear.

All heads of departments expressed the fact that the broadcasts were quite clear, content relevant and up to date. They registered the fact that the broadcasts were motivating and very precise. Vocabulary and sentence structure were to the level of the inservice teachers. They noted that the broadcasts acted as reinforcements to already taught lessons. They were a form of revision.
The Head of Professional Studies indicated that the content of the lesson was well elaborated. The Head of the Science Department expressed the same view indicating that the content was interestingly presented. The content of the lesson was related to the real class situations. He added that the broadcaster did well to repeat the main points of the lesson at the end and to involve the learners by asking questions.

The Head of the Music Department noted that the radio lesson involved two radio teachers thus varying the voices of the presenters.

From this research evidence the researcher observed that the radio broadcasts were generally of good quality. These findings agreed quite a lot with the data collected from the Deputy Head of the Radio Section, who indicated that, much care was taken in the choice of script writers and script readers.

The researcher inquired from the heads of departments whether there were any weaknesses with the taped broadcasts. Five heads of departments revealed that the radio teachers were quite fast, especially if the inservice teachers were to make notes during the broadcasts. They also revealed that student involvement was lacking and where present it was minimal. Student involvement came at the end of the broadcasts in form of assignments to be done by the inservice teachers. The Head of Science Department observed that the radio teacher asked the inservice teachers to put down notes at the end of the programme. He felt that this was not proper because not only would they have forgotten most of the points but another radio lesson would be due to begin.
The Head of Professional Studies noted that the radio lesson listened to was highly mechanical because it lacked teacher-learner relationship. It was observed that new terminologies were used in the lesson without being defined. The Head of Mathematics Department reported the lack of accuracy of content presented. The lesson listened to was on the "Schemes of Work" format. After listening to the broadcast twice he confirmed that a key column, that of lesson objectives was missing. He expressed the need to carefully revisit the lesson before presentation to ensure accuracy of content.

The Head of the Music Department reported content vagueness. It was observed that the radio teacher talked of "counts" and "white and black notes" under the topic "Rhythm in Music" without distinctively differentiating them from the "white and black keys" on the piano. This he noted would be confusing to the inservice teachers. Many of them were studying music for the first time. In the music lesson practical aspects of the lesson did not come immediately after every concept as was to be the case. Instead practical aspects came at the end of the lesson. The sequence of the lesson was observed to be poorly arranged. There were too many concepts brought out in one lesson. This kind of presentation could be confusing to the inservice teachers.

To alleviate this problem in the teaching of Music there was need to involve many subject specialists. These could reduce on the errors in the radio lessons. A panel of tutors from several colleges and other specialists could be used both in the production and assessment of the accuracy of the scripts.
On listening to the Kiswahili taped broadcast, the Head of the Kiswahili Department immediately recognized the voice of the broadcaster to be that of a well known Kenya Broadcasting Corporation news caster. Although a qualified news caster, he did not bring out the stresses in the lesson as a professional teacher would. The interviewee expressed the need to have professional teachers as script readers, in order to employ their teaching skills in the radio lessons making them more worthwhile. All the heads of departments registered the need to involve the inservice teachers during the broadcasts.

The data obtained from the heads of departments showed that indeed radio broadcasts revealed that careful preparation before airing of the programmes was made. There was still need to polish some programmes. Not all radio lessons were conscientiously prepared and presented. The lack of content accuracy and the ambiguity of some programmes as indicated in the research evidence above is indicative of this fact.

4.5.5 Problems Faced by the Inservice Teachers in the Use of the Radio

One of the major objectives of this research was to find out whether the inservice teachers had any problems in their use of the radio. The researcher interviewed the Deputy Head of the Radio Section, the Inservice Course Director, the heads of departments and the inservice teachers themselves to facilitate an all rounded investigation into the problems.

An interview with the Deputy Head of the Radio Section on whether they got any feedback from the inservice teachers on their use of the radio revealed that they did not. The interviewee said that the Radio
Section at the Kenya Institute of Education did not feel that it was their responsibility to do so. The Radio section felt that this was the responsibility of the inservice course organizers (Inservice Unit) which is under the University of Nairobi, College of Education and External Studies. The Education Media Service (Radio Section) was more concerned with evaluation of radio use in primary and secondary schools.

It was pointed out that the Education Media Service had no direct channel to the inservice programme. The Education Media Service did not feel obliged to find out the effectiveness of the inservice radio programmes. The interviewee was therefore not in a position to discuss any issues related to the effectiveness of the radio use among inservice teachers.

These findings were quite revealing. They showed that the Education Media Service only produced the inservice radio programmes. It did not make any follow-up as to whether they were effective or not. An earlier interview with the Head of Inservice in Kenya had indicated that the section directly under him was mainly concerned with Inservice Correspondence Materials. The production of radio programmes was left to the Education Media Service (Radio Section). It therefore seemed that there was no clear spelling out of who was to carry out the evaluation of the effectiveness of the inservice radio broadcasts.

Data collected further points, out that the aspect of evaluation of inservice broadcasts is a neglected one.

The Inservice Course Director was interviewed to gather any information related to problems the inservice teachers could be facing in their efforts to use the radio as part of their course. It was
expressed that the main problem was poor reception especially in the mountainous areas such as Mt. Elgon and some parts of the Rift Valley. Certain remote parts of Siaya, Homa Bay and Gem in Nyanza Province, Southern Busia and Kakamega District experienced a similar problem. Radio lessons, all of which take place in the afternoons were interfered with by bad weather, specifically much rain and thunderstorms which were characteristic of most afternoons in Nyanza and Western Province between March and August.

It was noted that some radio lessons were not very clear especially those where the radio teacher manifested a lot of mother tongue interference. This was detrimental to the Language lessons (English and Kiswahili) particularly. Worst of all was the fact that radio lessons were aired when the inservice teachers were teaching! The headmasters did not usually set the teachers free to listen to the broadcasts. Some male script readers were not very clear during the broadcasts. They tended to rattle away. These data were collected both from the Inservice Course Director's personal listening to the radio broadcasts and from her own investigations among the inservice teachers.

The heads of departments were also interviewed on whether they had ever listened to any radio broadcasts and whether any weaknesses were portrayed in the programmes. The researcher felt that getting information from their own experiences while listening to the broadcasts was important than just relying on their comments about taped broadcasts. Live broadcasts would probably reveal certain problems related to transmission which were absent from taped broadcasts.
The heads of Music Department, Professional Studies Department, English Department and Kiswahili Department, respectively had listened to inservice radio broadcasts before. The heads of Mathematics and Science Departments had not listened to any inservice radio broadcasts before.

Those who had listened to the broadcasts noted that the radio teachers took a fast pace. They did not give very relevant examples. Like the Inservice Course Director, they noted poor reception as a major factor that destroyed the worthwhileness of the programmes. Similar to the Inservice Course Director they expressed the fact that the time chosen for broadcasting was not favourable. Most afternoons in Western Province were characterized by bad weather which interfered with the broadcasts. The inservice teachers were also involved in teaching then.

The findings reveal that the programmes may be thoroughly prepared but if the radio teachers do not improve in their mode of presentation and if the handicaps in transmission are not reduced then the radio broadcasts will continue to be less effective.

The researcher sought to find out whether the sex and professional qualifications of the inservice teachers had any bearing on their ranking of the factors that most hindered their listening to the radio lessons.
Table IV.11: Order of Factors Hindering Radio Use among the Male and Female Inservice Teachers.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>N = 42</td>
</tr>
<tr>
<td>Poor reception</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>Unsuitable time</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>No time at all</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>No batteries</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>No radio</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>No interest</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

*Ranked number 5 among the female inservice teachers was the lack of interest.

Data presented on Table IV.11 reveals that poor reception was ranked first by both male (71.4%) and female (57.5%) inservice teachers. Ranked second by both male (40.5%) and female (35%) was the unsuitability of broadcast time. Both male (28.6%) and female (35%) ranked third the fact that they had no time at all to listen to the radio broadcasts. Listed fourth among thirty five point seven percent (35.7%) male and forty five percent (45%) female was the lack of batteries. Indicated fifty among twenty eight point six percent (28.6%) male was the lack of radios. The lack of interest was placed fifth by thirty five percent (35%) female. In both male (38.1%) and female (52.5%) the lack of interest was listed sixth.

These findings indicate that poor reception, unsuitable broadcast time and the lack of time to listen to the broadcasts were ranked first, second and third in that order by both male and female respondents. The
male ranked fifth the lack of radios while the female ranked fifth the lack of interest concerning the broadcasts. This difference in what was ranked fifth could be indicative of the fact that most men are the main breadwinners. They could be more sensitive about the cost of radios than the female inservice teachers. Both male and female inservice teachers placed sixth the lack of interest. This shows that it was the factor which hindered them the least from listening to the radio broadcasts.

Research evidence shows that the ranking of factors that most hindered the inservice teachers from listening to the radio was the same among both male and female inservice teachers except for sex (that ranked fifth). This is a significant pointer to the fact that the sex variable has no effect on the order of ranking of the factors. The factors that hinder radio use affect both sexes equally.

Table IV.12: Order of Factors Hindering Radio Use among P1 and P2 Inservice Teachers.

<table>
<thead>
<tr>
<th>Factors</th>
<th>P1</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor reception</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Unsuitable time</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>No time at all</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>No batteries</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>No interest</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>No radio</td>
<td>6</td>
<td>-</td>
</tr>
</tbody>
</table>
The researcher purposed to find out whether the difference in salary among P1 and P2 inservice teachers could be reflected in their order of ranking of the factors that most hindered them from using the radio. Particularly of concern was whether any differences could be noted in their ability to buy batteries regularly and own radios.

Table IV.12 shows that P1 and P2 inservice teachers ranked the factors in the same order. Placed first was poor reception, second was unsuitable time for broadcasts, third was having no time at all to listen to the broadcasts, fourth was having no batteries and fifth was having no interest in radio broadcasts.

From the data collected it was clear that difference in professional qualifications did not affect the order of ranking of the factors that hindered the inservice teachers from using the radio. It was nevertheless noted that although the P1 and P2 inservice teachers ranked fourth the lack of batteries, there were more P2s (42.6%) as compared to P1s (37.1%) who indicated that the lack of batteries was a hindering factor. Both groups did not rank the radio at all as a factor that hindered them from listening to the broadcasts.

These findings point out that most inservice teachers irrespective of professional grades either have radios or can easily borrow radios for use during the broadcasts. Since the broadcasts are on during class hours, the inservice teachers could be using school radios where available.

Table IV.12 shows that all teachers irrespective of grade level are keen in radio broadcasts. This is indicated by the fact that both P1 inservice teachers (74.3%) and P2 inservice teachers (72.4%) ranked last (among other factors) the lack of interest as a factor that was hindering them from listening to the radio.
The researcher made a general investigation into the factors that most hindered the use of the radio among all the inservice teachers (combined).

<table>
<thead>
<tr>
<th>Factors</th>
<th>Ranking</th>
<th>N = 82</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor reception</td>
<td>1</td>
<td>53</td>
<td>64.6</td>
</tr>
<tr>
<td>Unsuitable time</td>
<td>2</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>Not time to listen</td>
<td>3</td>
<td>26</td>
<td>31.7</td>
</tr>
<tr>
<td>No batteries</td>
<td>4</td>
<td>33</td>
<td>40.2</td>
</tr>
<tr>
<td>No interest</td>
<td>5</td>
<td>60</td>
<td>73.1</td>
</tr>
<tr>
<td>No radio</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Data collected did not deviate from the previous findings dealing with the sex and professional qualification variables. These findings clearly indicate that poor reception, unsuitability of broadcast time and the lack of time for the inservice teachers to listen to the broadcasts are the key factors that hinder the teachers from using the radio. The lack of interest was ranked last among the given factors. This reveals that if the handicaps to effective listening of radio broadcasts are removed then the inservice teachers would readily listen to radio broadcasts.

4.5.6 Preferred Broadcasting Time

The researcher sought to find out which broadcasting time could suit the inservice teachers more since they had indicated that the present time was unsuitable for many. The sex variable was taken into consideration.
The researcher desired to find out whether the choice of appropriate time could be influenced by the sex of the inservice teachers. Reasons why the times chosen were considered suitable were also to be indicated.

Table IV.14: Preferred Broadcasting Time among Male and Female Inservice Teachers.

<table>
<thead>
<tr>
<th>Time Preferred</th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5 p.m.</td>
<td>15</td>
<td>37.7%</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td>5 - 6 p.m.</td>
<td>14</td>
<td>33.3%</td>
<td>12</td>
<td>30%</td>
</tr>
<tr>
<td>6 - 7 p.m.</td>
<td>5</td>
<td>12%</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>7 - 8 p.m.</td>
<td>4</td>
<td>9.5%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>After 8 p.m.</td>
<td>4</td>
<td>9.5%</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>100%</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table IV.14 indicates that most teachers, thirty five point seven percent male (35.7%) and forty two point five percent (42.5%) female preferred 3 - 5 p.m. as the most favourable time. Slightly more female than male felt that this time was most favourable. This research evidence showed that school hours were found to be more convenient, more so for women inservice teachers. This could be due to the fact that after school there could be several distractors to listening to the broadcasts.

The time between 5 - 6 p.m. was favourable to thirty three point three percent (33.3%) male and thirty percent (30%) female. This again was immediately after class hours when co-curriculum activities were taking place. At such a time most teachers could still be at school. School provided a better environment for study than at home. Few inservice
teachers, twelve percent (12%) male and two point five percent (2.5%) female chose between 6 - 7 p.m. as appropriate. At this time the teachers would probably be walking home from school or just settling down for the evening activities. Among the inservice teachers, nine point five percent (9.5%) male and no female chose between 7 - 8 p.m. as appropriate. These findings reveal that this time was not convenient for most male and not at all for female. The female respondents could be busy with household chores then. Only nine point five percent (9.5%) male favoured listening to broadcasts after 8 p.m. in comparison to twenty five percent (25%) female. The higher percentage of female than male who preferred this time could be a pointer to the fact that the female would have completed their household chores.

Table IV.15: Preferred Broadcasting Time among Inservice Teachers

<table>
<thead>
<tr>
<th>Time Preferred</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5 p.m.</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>5 - 6 p.m.</td>
<td>26</td>
<td>31.7</td>
</tr>
<tr>
<td>6 - 7 p.m.</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>7 - 8 p.m.</td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>After 8 p.m.</td>
<td>14</td>
<td>17.1</td>
</tr>
</tbody>
</table>

Table IV.15 shows that the most preferred times for airing inservice programmes were between 3 - 5 p.m. and between 5 - 6 p.m. This data indicates that class hours and immediately after classes were the times considered most favourable. The most unfavourable times were between 6 - 8 p.m.
The inservice teachers stated why the various times indicated were favourable. The period between 3 - 5 p.m. was considered favourable because most of them had completed their lessons hence free then. Many taught lower primary in schools where lessons ended by lunch time. At this time they would still be at school. The school environment was free from home distractions. At school they could discuss the radio lessons with other inservice teachers. After the broadcasts they could have enough time to plan for the next day's lessons. It was also noted that between 3 - 5 p.m. school radios were available for use in some schools. These could be used when theirs were out of order. Those from West Pokot indicated that at 3 - 5 p.m. the reception was clearer in their district.

Among the reasons given by those who preferred 5 - 6 p.m. for airing radio broadcasts were that they were free from teaching and co-curriculum activities. Radio lessons would not interfere with school activities. By this time a number would have got home from school, relaxed from the day's activities and ready for the broadcasts. They would have enough time to do follow-up activities suggested by the radio teacher.

The seven point three percent (7.3%) who chose 6 - 7 p.m. as favourable indicated that at this time they would have arrived home, rested and settled from the daily activities. They indicated that home was quieter than school.

The four point nine percent (4.9%) who suggested that 7 - 8 p.m. was suitable for inservice radio broadcasts indicated that they would have completed lesson planning and marking pupils' work among other responsibilities by then. They would therefore be available to listen to radio broadcasts.
Seventeen point one percent (17.1%) chose 8 p.m. as the most suitable time indicating that after 8 p.m. all other duties will have been completed. There would be no distractions and pressing issues on the mind that would make listening to the radio ineffective. Those from Kakamega district indicated that the reception was better then in that district.

4.5.7 Ability to Follow Through the Radio Broadcasts to the End

The researcher looked into the ability of the inservice teachers to follow through inservice broadcasts to the end. This information would be a pointer to the existence of any problems, interfering with the inservice teachers' concentration on a given radio lesson.

Thirty nine percent (39%) respondents indicated that they were able to follow through the radio programmes to the end while sixty one percent (61%) indicated that they could not. Data gathered reveals that the majority of the inservice teachers are not able to follow through the radio broadcasts.

Asked what interfered with their ability to listen to any programme to the end, various reasons were given. Among them included poor reception which in Elgeyo Marakwet and West Pokot, was due to the mountainous nature of the region. In Bungoma and Kakamega sudden rains and thunderstorms contributed to the poor reception especially between the months of March and August. In Busia District the General Service station through which the inservice programmes were transmitted was not clear. There were no support materials to assist those who found the radio teacher either fast
or not clear, follow the programme to the end. Many inservice teachers indicated that they had to leave the radio lessons half-way to go and teach. It was indicated that the radio teacher was too fast to be followed in some instances. Since no guidelines to the programmes to be aired were provided many programmes began without the teacher having prepared the necessary resources required for the programmes. The inservice teacher was at a loss many times as a result.

Sometimes impromptu visitors to the respective schools, school meetings or even teachers being called upon to carry out certain activities in their respective schools interfered with their listening to the programmes. Some headteachers were reported to take away school radios from some inservice teachers using them for inservice broadcasts! Data collected also indicated that power failure and mechanical breakdowns in transmitting stations interfered with the smooth transmission of broadcasts.

These findings point to the existence of a variety of factors that interrupt the radio broadcasts, making the inservice teachers unable to follow through the broadcasts. Suggestions to alleviate these problems will be given later.

4.5.8 Inservice Teachers' Opinion on What Discourages them from Using the Radio

The purpose of this section was to encourage respondents to give responses that they may have not given in the structured responses but which were important in determining their feelings towards what discouraged them from listening to inservice broadcasts.
Quite a number of factors that discourage the inservice teachers from listening to inservice broadcasts echo what has already been discussed in this report. Poor reception was indicated by most inservice teachers. The late or failure to dispatch broadcast timetables and the lack of Support Materials were particularly discouraging. The inaudibility and quick pace of the radio teacher continued to be mentioned as a problem. The unsuitable timing of the broadcasts was not favoured. The repetition of lessons in the course of the week made the respondents have nothing to look forward to. It was indicated that once one misses a programme it was hard to follow the next one. Getting assignments on programmes the respondents had not followed well was not encouraging.

The cost of batteries had risen, making it difficult for the respondents to regularly listen to broadcasts. A few indicated the lack of radios. Broadcasting time was seen as too short. It was expressed that before the respondents got what the lesson was all about, it was all over. Many were too preoccupied with school duties to listen to radio broadcasts.

From this evidence the researcher felt that most of the factors enumerated as discouraging inservice teachers from listening to the broadcasts were genuine and could be avoided. Literature Review given in this report has already indicated that there is competition over broadcasting time by schools and various organizations. Hence although the respondents desired an increase on radio lesson time, it probably was not possible due to the above stated fact. The need for a repeat of radio lessons was discussed in the Literature Review. It was seen to be necessary to cater for those who because of one reason or another were
unable to listen to particular programmes. The repeat programme was to provide them an opportunity to catch up with that programme they had missed. Broadcast timetables needed to be dispatched to in-service teachers on time. This would make them aware of the programmes to be aired and avoid repeat programmes which some said made them have nothing to look forward to.

4.5.9. Worthwhileness of the Radio Broadcasts

It was not only the researcher's objective to identify the problems the in-service teachers faced in their use of the radio but also assess the worthwhileness of the radio broadcasts through interviews with the Inservice Course Director and the six heads of departments.

Inservice Course Director

From the interview with the Inservice Course Director on the worthwhileness of the radio broadcasts, several points were brought out. It was mentioned that the radio teachers served as good models for the in-service teachers to emulate in most of the programmes. Through the radio lessons the in-service teachers were encouraged to be better teachers preparing very well and being very systematic in the way they presented their lessons. The language used was to the level of the in-service teachers. The voices of the radio teachers were well pitched in most cases. The pace of the radio teachers were good and natural. The programmes were therefore worthwhile.
The Heads of Departments

The six heads of departments had listened to taped broadcasts in their respective subjects as indicated earlier. From these radio lessons the researcher sought to know whether they viewed the radio broadcasts as worthwhile or not.

Three of the heads of departments interviewed said the programmes were worthwhile. Two heads of departments said that the programmes were worthwhile only to a small extent. One indicated that the programmes were not worthwhile. Those who indicated that the programmes were worthwhile gave their reasons as including the fact that they supplemented what was covered in the Residential Sessions especially because there was too much content to be adequately covered in Residential Component. What was taught during the radio lessons had a direct bearing on what the inservice teachers were experiencing in their respective schools. Real practical school and life situations were given as examples during the broadcasts. The radio lessons provided hints to the inservice teachers on how to improve their teaching.

The heads of departments nevertheless cautioned that the worthwhile-ness of the broadcasts depended on various factors. Among these factors included the need for good preparation being taken into consideration, avoiding the monotony of one radio teacher and improving on the airing time. It would be futile to produce good programmes which went unheard.

The two heads of departments who said that the programmes were worthwhile only to some extent gave their reason for this opinion to be...
the fact that the many problems already mentioned in the preceding discussion negated their worthwhileness.

The one head of department who expressed the view that the programmes were not worthwhile at all, gave his reason to be that many in-service teachers did not listen to the broadcasts. This he mentioned was because of poor reception and the unsuitable choice of airing time. Some in-service teachers had no radios. A programme was only worthwhile if it was listened to.

Data collected indicates that for the radio broadcasts to be worthwhile the radio lessons should reach the in-service teachers for whom they are meant.

In-service Teachers

The researcher went ahead to find out from the in-service teachers themselves what encouraged them to listen to the radio broadcasts making the radio lessons worthwhile.

The respondents said that the radio broadcasts were part of their training requirements. They had to listen to them in order to be better prepared for their examinations. The broadcasts were relevant to their course. They were educative. They could emulate good methods of teaching demonstrated by the radio teachers. The lesson presentations were often systematic and had clear explanations. The mode of asking questions was good. The radio broadcasts reinforced and supplemented what was learned during the residential session. Radio broadcasts were good for revision
purposes. They helped the inservice teachers grasp content better and familiarize with the course content. The broadcasts compensated for that not covered during the Residential and Correspondence Components. They provided new information not given in books immediately available to the inservice teachers. Subjects the inservice teachers had never learned before such as Music and Professional Studies came out very well through the radio broadcasts. The radio lessons were generally seen to boost the inservice teachers in their studies. They provided precise and understandable summaries.

Research findings confirmed these views by revealing that seventy eight inservice teachers (95.1%) expressed the view that the broadcasts were worthwhile. Those who indicated that the broadcasts were not worthwhile formed a very small number, four inservice teachers (4.9%). Among these few, one indicated that he had no radio to use. Another had never listened to any radio broadcast while another was always committed during the inservice broadcasts. The fourth indicated that the radio broadcasts could not be received in his educational zone (Bukhayo East) in Busia District. The General Service Station used for inservice broadcasts was never heard in this zone.

These findings from all those interviewed point to the fact that inservice broadcasts are worthwhile, more so if the hindrances to effective listening of the broadcasts are minimized. Even among seventy eight inservice teachers themselves who form the greatest majority (95.1%), radio broadcasts are valued. This means that inservice radio broadcasts should be enhanced. Even the four inservice teachers (4.9%) who deemed the broadcasts not worthwhile had their valid reasons for holding those
views as already indicated. It is clear from their reasons that it is not really the radio broadcasts which are faulty but the fact that either they do not reach those inservice teachers or reach them in an ineffective manner as a result problems related to transmission. If remedies are sought to these problems then inservice radio broadcasts could be found worthwhile by all.

4.6 The Head of the Inservice Programme

An interview was held with the Head of the Inservice Programme to find out the worthwhileness of the inservice radio broadcasts.

It was revealed that the Correspondence Component was the most important because it formed the bulk of the syllabus. It contributed the greatest to the inservice teachers' final examinations. The Residential Component was second in importance because the residential tutors helped clarify all that was not clear in the course. They helped the inservice teachers find solutions to problems they encountered in the course. The radio component was ranked third in importance. It did not help the learners significantly in relation to the other components.

Whatever was taught in the radio lessons was not directly examined in the inservice examinations. As a result quite a number of inservice teachers realizing that the radio component was not really examined in the final examinations had relaxed in listening to inservice broadcasts.

The Head of the Inservice Programme indicated that since many inservice teachers experienced several problems in listening to the radio programmes, it would be unfair to directly set questions from this section.
Earlier this report's Literature Review revealed that unless the learners were examined on the broadcasts they listened to, it was unlikely that they would take those programmes seriously.

The researcher therefore sees the organizers of the Inservice Programme in a dilemma. On the one hand, there is need to set examinations on inservice radio broadcasts, while on the other, this cannot be done since not all inservice teachers listen regularly to radio broadcasts.

The Head of the Inservice Programme was interviewed on whether the objectives for the inclusion of the radio component in the inservice programme were actually being met. This item was important because through it the researcher would gauge whether the radio programmes were considered worthwhile or not.

The interviewee said that the reason for inclusion of the radio component in the inservice course was to deepen the understanding of the inservice students in the course content. It was indicated that the objectives could not be easily met because the inservice teachers were hindered from effective utilization of the radio as a result of several factors already mentioned. This made them not benefit from the radio broadcasts.

The findings indicate that the radio broadcasts were not really seen to be that worthwhile, by the inservice organizers themselves. They had been placed third in importance among the other components. Although being placed third does not mean that the radio broadcasts
are not of value. The prevalence of unresolved problems in the use of the radio reflect clearly the place given to the radio broadcasts in the whole inservice programme.

4.6.1 Tape Copying Service

4.6.2 Deputy Head of the Radio Section

Asking the respondent whether the present inservice group (1991-1994) had taken any cassettes for dubbing at the Kenya Institute of

Education in any of the subjects currently being studied, the response was that it was not easy to tell although records were kept. It was hard to tell from them who were the inservice teachers. Records kept did not give details of those who forwarded cassettes for dubbing.

These findings show that the Education Media Service has tried to make the inservice teachers aware of the existence of the tape copying service. In case the inservice teachers are not aware of the existence of the tape copying service at the Kenya Institute of Education, it could be the mode of publicity that needs improvement.

4.6.3 The Inservice Course Director

The Inservice Course Director was asked on whether the college had any cassettes on some of the inservice radio programmes in the subjects currently being studied. The objective of this item was to find out whether the college had provisions for those inservice teachers not able to listen to radio broadcasts to tape or listen to cassettes on such broadcasts. The interviewee said that the Education Media Service had neither sent nor alerted the college of the availability of taped inservice broadcasts for the present inservice group (1991-1994). The college nevertheless had some taped cassettes for previous years. The college had encouraged inservice teachers to send blank cassettes to the Education Media Service for dubbing of inservice programmes. A few inservice teachers had posted some cassettes to the Education Media Service. The Education Media Service had not even acknowledged the receipt of these cassettes or dubbed them!
The Inservice Course Director had made the various subject heads aware of the existence of some cassettes or inservice broadcasts. The heads of departments could listen to these cassettes and where deemed relevant, they could use them in their own teaching situations.

The data collected from the Inservice Course Director shows the need for the Education Media Service to be more efficient in creating awareness among inservice teachers and even colleges of the existence of tape-copying facilities at the Kenya Institute of Education. There was also need for efficiency in dubbing cassettes sent to them by inservice teachers.

4.6.4 The Heads of Departments

The heads of departments were interviewed to confirm the views expressed by the Inservice Course Director on the existence of cassettes on inservice radio broadcasts in their respective subject areas in the college.

Five heads of departments indicated that there were taped cassettes in their subject areas, while one indicated that there were none. It was indicated that there were about twenty four cassettes in the various subjects taught in the college. These cassettes had been brought into the college a few years back. It was pointed out that the inservice teachers hardly had an opportunity to listen to the taped radio broadcasts because the Residential Sessions were too condensed to allow them to have any free time. Nevertheless efforts were made in Professional Studies to have the inservice teachers listen to radio cassettes on Sunday afternoons.
Data collected revealed that only about twenty four (24) cassettes were available in the college on inservice broadcasts. Taking it that fourteen subjects are offered in the whole primary teachers' curriculum, it means that there was one point seven (1.7) cassettes on the average per subject. It also could imply that some subjects had no taped broadcasts. Yet the college could have been an ideal place where the inservice teachers can listen to taped broadcasts. They could even have their cassettes taped for them (on any broadcast they could have missed) here.

4.6.5 Inservice Teachers

Since the taped broadcasts were to cater for any shortcomings of live broadcasts related to transmission, the researcher inquired from the inservice teachers whether they had any programmes taped for them in any of the subjects they were then studying.

Data gathered revealed that none of the inservice teachers had taken any cassettes for dubbing at the Education Media Service. The researcher went ahead to find out what could be the reasons that most hindered inservice teachers from having any cassettes taped for them. The researcher was also keen to find out whether the professional qualification variable had any bearing on the factors that would be indicated as most hindering the inservice teachers from having taped broadcasts.
Table IV.16: Factors that Frequently Hinder Inservice Teachers from Dubbing Radio Broadcasts among P1s and P2s.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>P1</th>
<th>P2</th>
<th>P1</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of awareness of the existence of free-taping facilities</td>
<td>22</td>
<td>62.9</td>
<td>16</td>
<td>34</td>
</tr>
<tr>
<td>No cassette player</td>
<td>8</td>
<td>22.9</td>
<td>18</td>
<td>38.3</td>
</tr>
<tr>
<td>Process of buying and posting a cassette to Kenya Institute of Education for dubbing is cumbersome.</td>
<td>4</td>
<td>11.4</td>
<td>8</td>
<td>8.5</td>
</tr>
<tr>
<td>No money to spend on buying empty cassettes</td>
<td>1</td>
<td>2.8</td>
<td>5</td>
<td>10.7</td>
</tr>
<tr>
<td>No money to buy batteries</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>No response</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100</td>
<td>47</td>
<td>100</td>
</tr>
</tbody>
</table>

Table IV.16 shows that sixty-two point nine percent (62.9%) P1s as compared to thirty-four percent (34%) P2s were not aware of the existence of the free-taping facilities at the Kenya Institute of Education. The inservice teachers who had no cassette players were twenty-two point nine percent (22.9%) P1 as compared to thirty-eight point three percent (38.3%) P2 inservice teachers. Those who felt that the process of buying and posting a cassette to the Kenya Institute of Education was cumbersome were eleven point four percent (11.4%) P1s in comparison with eight point five percent (8.5%) P2s. It was indicated that two point eight percent P1s had no money to spend on buying empty cassettes in comparison with ten point seven percent (10.7%) P2s. No P1 inservice teacher indicated the lack of money to buy batteries as the greatest hindrance from having any cassettes taped for them. Among
the inservice teachers who did not respond were six point four percent P2s.

Data collected revealed that more than half of the P1 inservice teachers (62.9%) were not aware of the existence of free taping facilities at the Kenya Institute of Education. Table IV.16 shows that more P1 inservice teachers in comparison to P2 inservice teachers were not aware of the existence of the free taping facilities. These findings agree with what has been revealed earlier that P2 inservice teachers seem to be more keen to improve their professional grade than P1s. Hence though the mode of publicity of the free tape-copying facilities leaves much to be desired as already noted, the P2 inservice teachers possibly struggle to read even the small prints on their broadcast timetables in case they could be beneficial to their course. In so doing, they become aware of the existence of the free tape-copying services. The P1 teachers might be already comforted by the fact that they are training for the highest grade level in primary education.

It was noted that the P2 inservice teachers who indicated the lack of cassettes players as the most hindering factor to taping any cassette were more than P1s. This shows that the higher salary of P1s in comparison to that of P2s might be contributory to the ability to own cassette players.

Research evidence revealed that more P1 inservice teachers (11.4%) in comparison to P2 (8.5%) felt that the process of buying and posting cassettes to the Kenya Institute of Education for dubbing was cumbersome. This data is still indicative of the fact that if P2 inservice teachers had cassette players and enough money to buy empty cassettes, they would
be a bit more determined to send cassettes for dubbing than P1s.

A higher percentage of P2 inservice teachers (10.7%) in comparison to P1 inservice teachers (2.8%) indicated the lack of money to spend on buying empty cassettes. The difference in salary between P1s and P2s could still be contributory to these findings.

Table IV.16 shows that a very small percentage, two point one percent (2.1%) of P2s expressed that they lacked money to buy batteries and that this was key to their ability to send any cassettes to the Kenya Institute of Education for dubbing. The lack of money to buy batteries can therefore be seen to be a very minor factor that hinders the inservice teachers from having any cassettes dubbed for them.

The researcher saw it necessary to look into the factors that most hindered both the P1s and P2s as a whole from having radio broadcasts dubbed for them. Table IV.17 has the details.

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Lack of awareness of the existence of free taping facilities</td>
<td>38</td>
<td>46.3</td>
</tr>
<tr>
<td>No cassette player</td>
<td>26</td>
<td>31.7</td>
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<tr>
<td>Process of buying and posting a cassette to Kenya Institute of Education for dubbing is cumbersome</td>
<td>8</td>
<td>9.7</td>
</tr>
<tr>
<td>No money to spend on buying empty cassettes</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>No money to buy batteries</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>
Research findings shown in Table IV.17 indicate that among all the inservice teachers, there was a generally lack of awareness of the existence of free taping facilities at the Kenya Institute of Education. This was indicated by most inservice teachers (46.3%). This points to the need for the Education Media Service to improve on the methods it used to make the inservice teachers aware of the free taping facilities. This is especially needful if taped inservice broadcasts are to be the major way of solving most of the problems experienced in the use of the radio.

The lack of cassette players came second in position among the factors that most hindered the inservice teachers from having any cassettes taped for them. This information indicates that a number of inservice teachers have no cassette players. To benefit from the free tape-copying system, ways should be sought to get inservice teachers radio cassettes at reasonable prices.

4.7 Suggestions Towards Increasing Effectiveness

In the use of radio broadcasts, it was the researcher's objective to find out the suggestions that could be made by various people interviewed towards making the inservice radio broadcasts more effective.

4.7.1 Evaluation of the Radio Broadcasts

The Head of the Inservice Programme in Kenya said that to increase commitment among inservice teachers there should be examinations directly related to radio broadcasts. The Deputy Head of the Radio Section indicated that producers of radio broadcasts needed to get in touch with the inservice teachers to get to the crux of the matter. They
needed to know the inservice teachers' attitudes towards radio broadcasts. They also needed to know the problems the inservice teachers faced in using the radio among other issues related to broadcasts, in order to improve as appropriate.

4.7.2 Broadcast Support Materials

The Head of the Inservice Programme expressed the need to provide inservice teachers with clear guidance on how to prepare themselves before, during and after the broadcasts. This could be done by sending broadcast timetables, guidelines on topics to be aired, radio lesson notes and other Support Materials in time.

The Deputy Head of the Radio Section expressed the same view. He indicated that Support Materials had to be provided since they formed a vital part in effective use of radio broadcasts. They provided the visual part and gave incentive to the inservice teachers to listen to the broadcasts. Such prior guidance would help the busy inservice teachers choose what to listen to when pressurized by time. The Inservice Course Director and heads of departments agreed to the same view and added that the radio manuscripts should be sent to colleges also. Through them inservice tutors could be in touch with what was taught during the broadcasts and use them when necessary. Most of the inservice teachers expressed the same opinion indicating that Support Materials were crucial to effective radio use.
4.7.3 Tape Copying Facilities

The Head of the Inservice Programme in Kenya said that a greater move to encourage the inservice teachers to tape and listen to taped broadcasts needed to be made. There was also need for donor countries to be encouraged to provide cassettes to the inservice teachers since in most cases inservice teachers could not afford them. It was suggested that the fees the inservice teachers paid could be increased to include the purchasing of cassettes. The fees allocated to cassettes could be forwarded to the Education Media Service where it could be used to purchase, dub and supply the inservice teachers with cassettes on which the radio broadcasts had been taped. Through this system all inservice teachers could at least get cassettes. It was hoped that the inservice teachers could get cassette players and batteries by themselves.

The Deputy Head of the Radio section had a similar opinion. The Inservice Course Director expressed the fact that taped materials could be more effective than the radio broadcasts themselves. The Education Media Service needed to send copies of cassettes with current radio broadcasts to colleges and other centres used for inservice. Students could bring empty cassettes and have them dubbed in the colleges during the residential session instead of the cumbersome procedure of posting empty cassettes to Kenya Institute of Education. Taped radio broadcasts could be centrally placed in colleges. Deliberate efforts to ensure that the inservice teachers, despite their tight timetables, had an opportunity to listen to the taped lessons could be made. Sunday afternoons could be more suitable for this activity.
The heads of departments expressed a similar view. The inservice teachers themselves suggested that since most of them were not able to buy cassette players and cassettes, the Ministry of Education needed to look for ways to meet this need. Alternatively, Radio cassette players could be sent to their respective primary schools for their use.

4.7.4 Co-ordination and Commitment

The Deputy Head of the Radio Section indicated that the main agent of the inservice programme needed to be clearly identified. The Inservice Programme need not have been segmented so that part of the programme, the Correspondence Course Unit was at Kikuyu Campus, (University of Nairobi). Another part, the Residential Component under the Teacher Education Section at the Kenya Institute of Education. Yet another part, the Radio Section, under the Education Media Service, at the Kenya Institute of Education. These arrangements over-segmented the inservice programme reducing the amount of commitment by each section towards the success of the whole course. These were reflected in the fact that inservice radio broadcasts had not been assessed for a very long time to gauge their success. It was not clear whether the evaluation of the radio broadcasts was to be done by the overall organizers of the inservice programme themselves at Kikuyu Campus (Inservice Unit) or by the Education Media Service who seemed to see their role as that of producing programmes alone.

Without clear identification of where the whole Radio Component fell among the three segments, there would continue to be lack of commitment and zeal to boost the inservice radio broadcasts.
4.7.5 Radio Broadcasts

The Inservice Course Director recommended that booster stations needed to be increased to improve on the efficiency of the broadcasts. The same was expressed by many inservice teachers. Many added that since the General Service was not clear especially in Busia District, there was need to consider a change to the National Broadcasting Service.

The Inservice Course Director indicated the need to look into a suitable time for airing the radio lessons that would find most inservice teachers free from other responsibilities. It was observed that the inservice teachers' timetable was packed, characterized by moving from one class to another throughout the day. The heads of departments had the same observation. They indicated that the radio broadcasts could still be aired within the school hours so long as arrangements were made to ensure that the inservice teachers were free at the times the broadcasts were aired.

The inservice teachers themselves agreed to the same view. They suggested that the headmasters needed to be requested to ensure that when the class timetables were made, the inservice teachers were not scheduled when the broadcasts were on. Repeat programmes could be aired in the late evening or at night to enable those who might not be free during class hours to listen to the broadcasts.

It was suggested by all respondents that radio teachers needed to make all the necessary adjustments to ensure that the programmes were effective. They were to be models worth emulation. Particularly, they needed to teach at a moderate pace.
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter a brief review of the procedures used in the research will be made. The general findings of the research will be summarized. This will be followed by conclusions from data collected and recommendations. It is hoped that the recommendations could be used to minimize problems related to radio use. The recommendations could also help to improve educational policies and practice. Suggestions of areas that need further investigations are also given.

This study made an investigation into the use of the radio component in training in-service teachers. The procedure used was a survey technique. The type of sampling adopted for the research was stratified proportionate sampling of male and female among P1 and P2 in-service teachers. Six districts were used for the research. This included Uasin Gishu, Busia, West Pokot, Elgeyo Marakwet, Kakamega and Bungoma.

The main subjects included 82 P1 and P2 in-service teachers selected equally from all the six districts, respectively. These filled in questionnaires. Interviews were also held with various people including the Head of the In-service Programme in Kenya and the Deputy Head of the Radio Section of the Education Media Service at the Kenya Institute of Education, among others.

Data collected from the respondents was analyzed and interpreted. The findings were recorded.
5.2 Conclusions

1. The majority of inservice teachers (84.1%) had at least listened to some inservice radio broadcasts. This shows that some efforts had been made among inservice teachers to listen to broadcasts.

2. Busia District among the six districts had the greatest number (46.2%) of inservice teachers who had not listened to inservice radio broadcasts. It was the district most hit with problems related to radio use, such as poor reception, lack of receiving of radio timetables and the fact that the General Service Station was faint in that district. This revealed that the more problems one experienced in radio use the less motivated they were to listen to inservice radio broadcasts.

3. The sex variable had no significant bearing on radio use. Both male and female inservice teachers were equally interested in radio broadcasts especially since they were aired during school hours.

4. P2 inservice teachers were more keen to listen to radio broadcasts than P1 inservice teachers. P1 inservice teachers being trained for the highest grade of teachers at primary level probably did not feel as challenged to work hard as the P2 inservice teachers.

5. Most inservice teachers (93.3%) taught an average of eight or more lessons per day. It is not therefore easy for them to find time to listen to any radio broadcasts.

6. Most inservice teachers (65.9%) had a teacher-pupil ratio of one teacher to forty pupils (1:40) and above. This shows that inservice
teachers lack the time to both effectively carry out required professional responsibilities at school and to listen to radio broadcasts.

7. The organizers of the inservice course saw the radio component as not very key in its role. It served a peripheral roles. The way the radio broadcasts were managed and the lack of enthusiasm to evaluate their effectiveness significantly pointed to that fact.

8. There was inefficiency in the supply of broadcasts timetables. They either were dispatched late or never at all. This made the inservice teachers often unaware of which programmes were being aired when.

9. No training on effective radio use was provided for in the syllabi. There were also no guidelines on topics to be aired in each subject area.

10. No broadcast support materials were sent to the inservice teachers. This prevented them from benefiting from the broadcasts to the maximum.

11. Inspite of the problems experienced by the inservice teachers in the use of the radio, there was clear evidence that in most cases great care was taken to ensure that quality radio broadcasts were produced.

12. Inservice radio broadcasts in themselves were generally viewed as being of good quality and worthwhile more so by the inservice teachers themselves. The main weakness was the quick pace of the radio teacher.

13. Among the major problems that interfered with the broadcasts were poor reception and unsuitable airing time. The inservice teachers were not able to listen to most broadcasts. The lack of batteries and radios, delay in sending broadcast timetables and problems related to the mode of
presentation were also indicated. Most inservice teachers were not able to follow through the radio broadcasts to the end.

14. It was very clear that the professional qualification variable had an effect on the ability of the inservice teachers to buy batteries, radios or radio cassette players and cassettes. P1 inservice teachers seemed to be more financially able than P2 inservice teachers.

15. The main causes of the problems related to radio use were the lack of finances to buy batteries and radios. Also indicated was the bad weather (rains and thunderstorms) and the mountainous terrain which interfered with the reception. The inservice radio broadcasts were aired when the inservice teachers were teaching or involved in other school activities. This made them not listen to the broadcasts.

16. The objectives set for including the radio component in the In-service Course have not quite been achieved due to the problems prevailing against radio use.

17. The free tape copying service, although introduced by the Education Media Service to alleviate the problems/to hinder learning by radio were found ineffective. The inservice teachers had not yet benefited from it.

18. Various suggestions were made towards increasing effectiveness in radio use. Among these included the need for more co-ordination and commitment on the part of the organizers of the inservice programme and the Radio Section at the Kenya Institute of Education. Regular evaluation of the inservice radio broadcasts needed to be made to gauge their success.
5.3 Recommendations

1. The Ministry of Education needs to set up a policy ensuring that the inservice teachers are free in the afternoons to listen to the inservice radio programmes if they have to benefit from them. Most teachers had indicated that the best time to listen to the broadcasts was between 3-5 p.m. on week days.

2. Annual evaluation of the effectiveness of the inservice radio broadcasts should be done and necessary improvements made accordingly. This will make the inclusion of the radio component in the inservice programme more meaningful.

3. It was indicated from the research findings that there was no clear indication as to who was to be responsible for the evaluation of the inservice radio broadcasts. Since the Education Media Service was the producer of the inservice radio broadcasts then it would be best for them to carry out the task of evaluation. This could create more enthusiastic support and commitment on the part of the Education Media Service to see to the success of educational radio among the inservice teachers.

4. The Ministry of Education needed to look into the possibility of increasing the fees the inservice teachers paid so that it included a vote for radio cassette players and at least twelve empty cassettes per inservice teacher. This should be purchased at costs affordable by inservice teachers. These items could be purchased in bulk by the Education Media Service to reduce on the expenditure.
Once purchased, the items could be taken to the inservice training centres during the first inservice session. They would be given to each teacher trainee on admission.

Such a procedure is feasible because inservice teachers are usually very desperate to undergo training in order to "shade off" the belittling title "U.T.s" or untrained teachers used to refer to them. Once selected for training they would definitely struggle to get money for the course. It was observed that left to buy radio cassette players individually, many could not because of their own financial commitments.

The Government could also request donor countries to assist in this project. Such a move could help the inservice teachers benefit wholly from the free tape copying service.

If the above scheme is implemented, it can serve as an alternative to the radio broadcasts which are characterized by several problems related to transmission.

5. The inservice radio broadcast timetable and information on the availability of free tape copying services should be printed in bold letters on the front page of particular correspondence booklets. Inservice teachers are definitely sent these booklets as they are used for the correspondence component. Hence it is inevitable that they will get the broadcast timetables. These materials should be sent on time to be useful.

6. The Education Media Service needs to alert colleges of the existence of taped inservice broadcasts. Colleges can then send empty cassettes for dubbing of the inservice broadcasts. Inservice teachers could have
their individual cassettes dubbed for them during the residential session instead of the cumbersome procedure of posting empty cassettes to the Education Media Service. At the colleges, the inservice teachers could have an opportunity to listen to any broadcasts they could be interested in.

The Education Media Service should increase publicity of the free tape copying facilities at the Kenya Institute of Education through the press.

7. **Support Materials are crucial to effective radio use.** The Government should subsidize for their production and dispatch to students. They should be sent timely.

8. **Booster stations need to be increased to improve on the efficiency of the broadcasts.**

9. **The most productive use of school radio requires familiarity with its technical possibilities.** Curriculum developers should include in the inservice syllabi: a section on how to effectively use the radio in learning. This move will make the inservice teachers appreciate and commit themselves more to using the inservice radio broadcasts.

5.4 **Recommendations for Further Research**

1. There is need for an investigation into the use of the Radio Component among P3 inservice teachers. The research findings will reinforce views expressed in this study.

2. A similar research should be carried out nationwide. This will help give a more conclusive judgement as to the extent the inservice radio broadcasts are achieving the set objectives.
**BIBLIOGRAPHY**

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publisher/Location</th>
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<tbody>
<tr>
<td>Kamau, J.</td>
<td>The External Degree Programme Training Manual</td>
<td>Nairobi: College of Adult and Distance Education and Kenyatta University College, 1984.</td>
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## A Sample of an Inservice Course Outline Showing the Content of the Three Components in Professional Studies

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<th>Correspondence</th>
<th>Radio</th>
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<td><strong>A. Educational Foundations</strong></td>
<td><strong>A. Foundations of Education</strong></td>
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<td>a) African Philosophies of Education with reference to:</td>
<td>a) Philosophy of Education</td>
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<td>b) Education as a System</td>
<td>i) Nyayo philosophy</td>
<td>b) History of Education</td>
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<td><strong>B. History of Education</strong></td>
<td>ii) Harambee philosophy</td>
<td>c) Sociology of Education</td>
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<tr>
<td>- Islamic Education</td>
<td>iv) Education for Self-reliance.</td>
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<td>- Establishment of Western Education</td>
<td>v) Common Man's Charter on Education.</td>
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<td>i) Before 1963</td>
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<td>ii) After 1963</td>
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<td>- Application of Piaget's Theories.</td>
<td>b) Language Development</td>
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<td>b) Learning Process</td>
<td>c) Moral Development</td>
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<td>Meaning and how learning</td>
<td>d) The Learning Process</td>
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<tr>
<td>c) Educational Research, Evaluation and Measurement.</td>
<td>f) Guidance and Counselling</td>
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<td>g) Personality Development</td>
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<td>b) Syllabuses, Schemes and Lesson Plans.</td>
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<td>c) Primary Methods of Teaching.</td>
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<td>d) Classroom and Learning Resources Management.</td>
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<td>b) The Teaching Profession.</td>
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<td>c) School Records and Finances</td>
<td>c) Organizational Structure of the Ministry of Education.</td>
<td>c) Other Educational Agencies.</td>
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<td>d) Headteacher's Accountability</td>
<td>d) The Teaching Profession.</td>
<td>d) Continuing Education for Adults.</td>
</tr>
</tbody>
</table>
SECTION I

GENERAL INFORMATION

1. Name of your home district..........................

2. Sex

a) Male  (  )

b) Female  (  )

3. Age (in years)

a) Under 20  (  )

b) 20 - 30  (  )

c) 31 - 40  (  )

d) Over 40  (  )

4. Professional qualifications for which you are training

a) P1  (  )

b) P2  (  )

5. Indicate the number of lessons you teach.

a) Under 20  (  )

b) 20 - 30  (  )

c) 31 - 40  (  )

d) Over 40  (  )

6. Give an estimate of the pupils in your school.........................

7. Number of teachers in your school.................................
SECTION II

INFORMATION ON THE USE OF THE RADIO

8. How often do you listen to the radio programmes?
   a) Always
   b) Sometimes
   c) Once in a while
   d) Never

9. How do you receive your radio timetable?
   a) Through the District Education Officer's Office
   b) Through your Primary School
   c) Given during the first residential session
   d) By Post
   Any other ways (please indicate)

10. When did you get your radio timetable?
    a) In time
    b) Late
    c) Very late
    d) Never

11. Before the broadcasts, are you given a list of the topics to be
    aired in each subject?
       a) Yes
       b) No

16. State which broadcasting time would suit you.
    a) 3 - 5 p.m.
    b) 5 - 6 p.m.
12. Are you sent support materials such as explanatory notes, illustrated pamphlets and charts, to assist you during the broadcasts?
   a) Always
   ( )
   b) Sometimes
   ( )
   c) Never
   ( )

13. In what ways are you encouraged to participate during the broadcast?
   a) Expected to listen only
   ( )
   b) Expected to listen and also carry out certain activities suggested by the radio teacher.
   (e.g. look at page...in your textbook, answer the following questions in your notebook, etc.)
   ( )

14. Number the following reasons that may hinder your listening to the radio according to how they affect you. (For example, write number one beside the reason that affects you most and number six beside the reason that affects you the least.
   a) No time to listen
   ( )
   b) Poor reception
   ( )
   c) Broadcasting time not suitable
   ( )
   d) No batteries
   ( )
   c) No interest
   ( )
   d) No radio
   ( )

15. State which broadcasting time would suit you.
   a) 3 - 5 p.m.
   ( )
   b) 5 - 6 p.m.
   ( )
c) 6 - 7 p.m. ( )

d) 7 - 8 p.m. ( )

e) After 8 p.m. ( )

Indicate why the time selected is good for you: ..............................................

.................................................................

16. Are you trained on how to use the radio for your inservice course?
   a) Yes ( )
   b) No ( )

17. Are you able to follow the radio programmes to the end?
   a) Yes ( )
   b) No ( )

If not, what problems do you face? .................................................................

.................................................................

18. Have you had any programmes taped for you in any of the subjects you are now studying?
   a) Yes ( )
   b) No ( )

If Yes, indicate the subjects in which you have taped cassettes: .................................................................

.................................................................
19. From the list below tick the reason that has most hindered you from having any cassettes taped for you.

a) Not having a radio cassette player

b) Having no money to spend on buying empty cassettes.

c) Having no money to buy batteries to use where electricity is lacking.

d) Feeling that the process of buying a cassette and posting it to Kenya Institute of Education (K.I.E.) might be involving (take some time).

e) The lack of awareness of the existence of facilities at K.I.E. so long as you send your empty cassette and indicate the programme you want taped for you.

SECTION III

YOUR OPINION ON THE USE OF THE RADIO

20. What encourages you to listen to the radio broadcasts, if any?

21. What discourages you from listening to the radio broadcasts, if any?
22. Are the radio lessons helpful to you?

a) No

b) Yes

Explain your response.

23. What do you think should be done to help you benefit from the radio broadcasts?
APPENDIX III

INTERVIEW SCHEDULE FOR THE HEADS OF DEPARTMENTS

The respondents are to answer and discuss around these questions.

1. Does the inservice syllabi provide for the teaching in the use of the radio in your subject area?

2. Do members of your department teach the inservice teachers how to use the radio in their course or even in teaching the primary school pupils?

3. Does your college have cassettes on the inservice radio programmes in your subject area?

4. Have you ever listened to radio programmes in your subject area?
   If yes, what would you comment about them?

5. Would you mind listening to a 20 minutes inservice radio programme in your subject area?
   i) Please, comment on any positive thing about the programme.
   ii) Is there anything that needs improvement in the programme?

6. Do you feel that the inservice radio programmes are worthwhile?
   Why?

7. What recommendations would you make towards effective utilization of the radio by the inservice teachers.

THANK YOU FOR YOUR COOPERATION.
APPENDIX IV

INTERVIEW SCHEDULE FOR THE INSERVICE COURSE DIRECTOR

The respondent is to answer and discuss around these questions.

1. i) How are the radio timetables dispatched to the inservice teachers?
    ii) Any problems with the dispatching of the timetables?

2. Does the inservice syllabi provide for the teaching in the use of
    the radio in each of the subjects offered in the course?

3. Do the inservice teachers have any problems in the use of the radio?

4. Are the inservice teachers supplied with Radio Support Materials to
    back up the broadcasts?

5. Does your college have cassettes on some of the inservice radio
    programmes in the various subject areas?

6. Have you ever listened to the inservice radio programmes?
    i) What is positive about them?
    ii) What discourages you about them, if any?

7. What recommendations would you make towards effective utilization
    of the radio by the inservice teachers?

THANK YOU FOR YOUR COOPERATION.
INTERVIEW SCHEDULE FOR A MEDIA SPECIALIST (RADIO SECTION)

1. What methods do you use to send the radio timetables to the inservice teachers?

2. Do you send them guidelines on the topics to be aired in each subject?

3.i) Do you send them inservice support materials to accompany the radio broadcasts?
If Yes, how and why?

ii) What type of support materials do you send them?

4. What are the qualifications of those who write the scripts for the inservice radio programmes?

5. What are the qualifications of those who read the scripts for the inservice radio programmes?

6.i) Have you got any feedback from the inservice teachers on their use of the radio?

ii) What strengths do they attribute to the programmes?

iii) What weaknesses do they attribute to the programmes?

7. Do they have any problems in the use of the radio?

8. What are the ways through which you get such information?

9. Do you provide any guidance to the inservice teachers in the use of the radio?

10. Do you involve the inservice teachers in any activities during the broadcast?

11. Is what you offer in the radio broadcast examined at the end of the course?
12. In what ways do you make the inservice teachers aware of the tape-copying facilities at K.I.E.

13. Have any of the present inservice group (1991-194) brought any cassettes for taping in any subject? Is it possible to get from your records the number of those who have actually had cassettes taped for them?

THANK YOU FOR YOUR COOPERATION.

14. How would you increase effectiveness in the use of the broadcasts?
APPENDIX VI

INTERVIEW SCHEDULE FOR THE HEAD OF THE INSERVICE PROGRAMME IN KENYA

The respondent is to answer and discuss around these questions.

1. Why was the radio component introduced in the inservice course?
2. Do you play any part in the production of radio programmes?
   If so in what way?
3.i) Does the inservice unit in anyway give guidance to the inservice teachers in the use of the radio? How?
4. Have you got any feedback on the effectiveness of the radio in the inservice course?
5. Of what value is the radio component as compared to the other 2 components, (Correspondence and Residential) of the inservice programme?
6. Is what is offered in the radio component examined at the end of the course?
7. Would you say that the objectives for the inclusion of the radio component in the inservice programme are actually being met?
8. What suggestions would you give to increase effectiveness in the use of the broadcasts?

THANK YOU FOR YOUR COOPERATION.
INTRODUCTORY NOTE FOR THE RESEARCH PROJECT.

M.ED. (PTE) II COURSE - 1992

STUDENT'S NAME: ELVIRA SHITOH

The above named is our post-graduate student undertaking a Master's programme at this university. In the final year of the programme, it is the practice of this University for Masters Students to produce a piece of research project work as a partial fulfilment of the degree.

It is in this regard that I request you to assist and encourage this student in carrying out project work of the title:

An investigation into the use of the radio component in training inservice teachers.

Thanking you in advance, Elvira Shitohi

Yours faithfully,

Dr. Twoli N.W.

COURSE CO-ORDINATOR, DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY.
### APPENDIX VIII

**WORK SCHEDULE**

May 1992 to January 1993: Period within which to write the proposal, carry out the research and submit the Research Report.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATES</th>
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<tbody>
<tr>
<td>1. Writing of Research Proposal</td>
<td>22/5/92 - 7/8/92</td>
</tr>
<tr>
<td>5. Analysis of data from pilot study and improving questionnaire</td>
<td>14/9/92 - 18/9/92</td>
</tr>
<tr>
<td>6. Actual Research</td>
<td>21/9/92 - 10/10/92</td>
</tr>
<tr>
<td>7. Analysis of Research Findings</td>
<td>12/10/92 - 30/10/92</td>
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<tr>
<td>9. Submit Draft to Supervisor for Reading and Advising Accordingly</td>
<td>16/11/92 - 20/11/92</td>
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<tr>
<td>11. Typing Final Report</td>
<td>7/12/92 - 18/12/92</td>
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<tr>
<td>12. Binding</td>
<td>21/12/92 - 31/12/92</td>
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