CHAPTER THREE

RESEARCH METHODOLOGY

INTRODUCTION

In the previous chapter, a review of related literature that dealt with the teaching of Reading, the various researches on Reading both as a process and as a factor in achievement was discussed. In the following chapter, the methods and/or procedures used in the study will be described and discussed.

3.1 SAMPLE

A stratified random sample of nine (9) schools out of a total of twenty one (21) boarding secondary schools across Baringo district were chosen. Of the twenty one schools, six (6) were girls’ boarding schools, seven (7) boys’ boarding and eight (8) mixed (co-educational) boarding schools. From this population, we can see that the sample to be drawn will not constitute a homogenous group. A stratified sampling technique was therefore applied in order to obtain a representative sample.

The schools were grouped together according to sex and were each assigned numbers to represent each strata of the population. The slips bearing the numbers were then put in a hat and three from each group picked at random. The same was done for the mixed boarding schools. In this way, it was thought that it would eliminate bias and that each school would have an equal chance of being picked for the study.

The following schools in each category were thus sampled for the study.

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<th>Girls' Schools</th>
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<th>Mixed Schools</th>
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A total of three hundred and seventy seven (377) form three students (at the age of 17+) participated in the study. There were one hundred and twenty eight (128) students from the girls' schools, one hundred and twenty nine (129) from the boys' schools, and one hundred twenty (120) from the mixed (co-educational) schools.

From these schools, thirty three (33) English language teachers: four (4) from six schools each and three (3) each from the remaining three schools, participated in the research. Out of the thirty three teachers, seventeen (17) were women and sixteen (16) were men. Their teaching experience ranged from one year to more than five years: 39.3% indicated that they had taught for more than five years, while 33.3% mentioned a teaching experience of two to four years. All of them were trained, the majority, (84.8%) of them possessing a Bachelor of Education (B.Ed.) degree.

3.2 PROCEDURE

In the study, the students were given a questionnaire each to fill. The students' questionnaire solicited information about their reading habits, what they enjoy reading or listening or watching on Television/Radio in their spare time. Thereafter, Cloze and Comprehension tests were administered to them over a double lesson of ninety (90) minutes. They were given the instructions first, and were expected to do the Cloze test, then turn over the page to do the Comprehension questions. These were done in English language periods spread over two days. The English language teachers were on standby to assist should any problem arise. The Cloze procedure was chosen to measure language based comprehension and proficiency because Cloze, the practice of requiring examinees to restore deleted words to text, is well suited to the study. It studies the interaction between text and individual comprehension processes, precisely because as Jonz (1987:414) states 'it is an integrative interactive testing procedure'. It requires examinees to apply knowledge at various levels of generality, ranging from the morpho-syntax of phrases to broad concepts and systems of belief.
During the forty or more years that Cloze tests have been used in research and teaching, it has been demonstrated repeatedly that an examinee must bring a wide range of language related abilities to bear on responding to a Cloze test item. Among these abilities are a language-specific syntactic capacity, a set of rhetorically based expectations, and minimally, that schematic knowledge related to the perceived topic of discourse.

In a study done by Bachman (1985) in Jonz (1987), it was demonstrated that the items on a standard every nth word of fixed ratio Cloze procedure can be sorted into four categories depending upon the level of context required for successful closure. According to this research in response to a Cloze test, an examinee must apply (1) Clause level (Syntactic) knowledge (2) Sentence level knowledge that would cross causal boundaries, (3) Inter-sentential knowledge constrained by textual features of the discourse, and (4) extra-textual knowledge. The Cloze procedure was used because research has shown that it is a highly useful method in assessing and grading performance (Narasimha Rao 1980: 137). Cloze tests are based upon the principle of Gestalt psychology. According to Riley in Cripwell (1976) the Cloze procedure may be defined as:

a method of deleting words from a prose selection and evaluating the response a reader makes as he supplies the deleted words. From the reader’s score on the passage, both readability or the reading difficulty of the passage and the reading achievement of the subject can be assessed. Words to be deleted (Cloze items) may be at random or by a mechanical procedure—every nth word (standard Cloze) or according to a criteria such as word class redundancy or predictability.

Soudek & Soudek (1983: 355) in their study observed that within this principle, ‘the law of closure is of vital importance. It reflects the natural tendency of human beings to perceive unfinished or incomplete figures as completed entities to fill in the gaps in broken patterns’. In other words both physical and mental processes have a natural tendency to complete or ‘close’ incomplete figures or acts. This technique challenges
the reader (or speaker in recent Oral Cloze tests) to fill in gaps created by the intentional deletion of words or units in an otherwise continuous text.

Cloze tests draw upon and sample the learner's global ability in the target language. Porter (1976:152) talks of the grasp (which the learner must have) of the subtle relationships obtaining between the structure and the lexis necessary for successful completion of Cloze tests. Several researches have also found that Cloze tests can be as valid as any other type of tests. While supporting the use of Cloze tests in language testing, Cripwell (1976) argues that 'Cloze tests are comparatively easy to construct. And also, in these tests the student has to make up his own mind' and it has been claimed that in this way the test unlike most other tests is creative rather than a failing test.

The other point that has also been observed is that students using Cloze tests really do read the passage several times as instructed. Another factor is that readers are encouraged to examine the discourse of the total passage rather than individual items (lexis) or sentence structure. This is an important element particularly for intermediate or advanced students. The Cloze test teaches the student to cope with redundancy by forcing him to concentrate on the meaning of the whole passage.

Similarly, the uses of Cloze tests can be manifold (see Oller et.al 1973, Sareen 1987, Wainman 1979, Porter 1976). Cloze tests may be used to establish the levels of readability to a given text in terms of a given readership. This factor is more important in the case of a second or foreign language instruction such as the one we are concerned with in the present study. If the learners are able to read a given text with ease and fluency, then the teaching methodology adopted can be said to be clear and the need for the re-explanation of the text to the learners may not be necessary. However if the learners exhibit some difficulty in reading then it might be necessary to concentrate on those areas in which the learners' experience reading problems and
in the process assist them arrive at an understanding of the text.

A second use of Cloze tests is to assess the achievement of the learners by using randomly selected passages from the texts and developing these for testing the Cloze test items. It has been proved that they provide a fair reflection of the learner's achievement in the class. Cloze tests are also useful to the teacher because the difficulties shown by the students in their scores helps the teacher develop relevant and useful teaching materials, and also adopt appropriate teaching strategies.

We can, therefore, deduce from these varied uses that Cloze tests seem to offer a wide range of possibilities for experimentation not only to the researcher but also to the classroom teacher. Indeed it is very much within the reach of any language teacher to construct Cloze tests and score them without difficulty. It was because of these various advantages that the method was used in the study.

After the Cloze test the students were asked to answer the comprehension questions drawn from the same passages. The students were given clear instructions on how to answer the questions. The tests had some multiple-choice questions and the students were expected to choose the best answer from the options below each question. While in other questions they were expected to explain or describe an item or fact from the passage, the multiple choice tests were chosen for the study because of their advantages which quite a number of scholars have observed in their use. For example, Schofield (1972) while discussing assessment and testing in education, states that the multiple choice tests can be completed in a reasonably short time and can cover a good deal of ground in that time. They are easily marked, and the marking is also objective, since every answer is either completely right or wrong.

The thesis that multiple choice questioning can be used effectively to train a person's ability to think is now widely accepted. Munby (1979:142-145) while discussing the
teaching of Intensive reading skills observes that 'the criticism is sometimes heard that multiple-choice questioning is too simple and does not make the pupils think, since it is easy to pick out the answer among the given alternatives. This is invalid, since it is a criticism of the particular question or questions, not of the system'. It is possible to set the distractors (the alternatives which are not acceptable as the best answer) so close that the learner has to examine each alternative very carefully indeed before he can decide on the best answer.

Sopher E. (1972:110) on the other hand argues for the use of multiple choice comprehension tests in teaching reading because of its numerous uses. She lists the following as the major aims for its use:
1. For testing the students’ comprehension of the text per se.
2. Testing the student’s comprehension of words, phrases or sentences used in the text.
3. Testing the students’ knowledge of grammatical structure.

In the tests, it was made sure that each question examines a separate piece of knowledge, skill or idea. Questions where the answers form part of the answer to a question already tackled by the student, or to a question still to follow, were avoided.

Although comprehension questions, may be in the form of multiple choice or true/false types. In a normal narrative piece of writing, another way to test both comprehension and control of vocabulary would be to leave out a number of key word and ask the students to fill in the missing word/part of the sentence. This is known as a ‘completion exercise’ and can also be done with individual sentences. In a continuous passage, however, it serves a special purpose, because in such reading much of our understanding derives from a general knowledge of the subject that the author is writing about. Much of that knowledge in turn, is gained from sentences which may have preceded the one where a specific point is being made. These sentences establish what is called ‘context’ of any particular word or phrase or
sentence (See Regional Institute of English 1972).

One can often draw conclusions from this 'Context' which are not necessarily stated explicitly by the writer. The kind of information, which the reader gets in this way, is sometimes referred to as 'reading between the lines'. Other writers (Nuttal 1982, Carrell et.al 1988) describe the same thing as the process of 'inferring' a fact from the information given or of coming to a particular conclusion on the basis of what is actually said. In the comprehension tests, a range of questions including the above question types were used. Questions aimed at testing the students' vocabulary and inference skills were included. It was hoped that from these tests, the students' reading problems would be revealed. The tests were developed for the study by the researcher from one of the recommended K.I.E. textbooks for this level. A general principle underlying the construction of the tests was that of relevance of the test materials to the culture and environment of those being tested. This was done to take care of the prospect of the students experiencing difficulties in the passages if the texts were alien to their background. Indeed some recent studies (see Carrell 1983:184) of second language (ESL) readers demonstrate the effects of background knowledge in ESL reading Comprehension. Most of these studies show that ESL readers read, understand and remember better texts that deal with their own familiar culture. That is, materials for which they have well-developed background knowledge than they do texts that deal with a less familiar culture- i.e. materials for which they lack the appropriate schemata.

In a series of empirical studies with native English speakers Bransford and Johnson (1973) in Carrell (1983) report that two components of background knowledge which affect comprehension are:

1. prior knowledge that the text is going to be about a particular Content area

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1 The Kenya Institute of Education (K.I.E.) usually prescribe three or four books for each of the classes in the secondary schools. The schools or teachers are then left to choose one book from these prescribed books for teaching.
2. the degree to which the lexical items in the text reveal what the text is about during processing, called the concreteness-abstractness of a text.

Meaning does not just reside in the text, rather, meaning is constructed out of the interaction between a reader’s activated background knowledge and the content of the text. If a reader is not actively using his or her background knowledge, a significant part of the reading process is not taking place and the construction of meaning suffers.

The passages chosen deal with topics that are very familiar to the students. For example, passage-A deals with a subject, which is not strange in traditional Africa. Passage-B deals with the law enforcement agency: The Police. In many African countries the behaviour of the police towards civilians, their corrupt tendencies and brutality have been issues of much concern to everybody. The issue discussed in the passage is therefore not new to the subjects. Similarly Passage C deals with The Patas Monkey which is part of Kenya’s natural heritage. Kenya is a popular tourist destination and each year tourists from Europe, Asia and America come to watch the animals in their natural habitat. The Patas monkey is one of these animals and since the subjects come from areas that usually shelter these animals, they therefore do not feel alienated by this passage because it discusses a familiar topic. All these passages therefore have an African background.

3.3 CLOZE TESTS AND COMPREHENSION

The Cloze procedure was used for testing both the readability and comprehensibility of the text, and comprehension. The Cloze tests consisted of fifty (50) item tests in all the three passages. The students were expected to fill in the correct word in the blank spaces. In the comprehension test the students were asked to read the passages and choose the correct answer from a number of alternatives. They were also expected to give the meaning of certain vocabulary or phrases as is used in the passages. In certain
questions, the students’ ability to infer meaning from context in the passage was also tested. In other questions they were required to describe in detail some information gleaned from the passage. They were expected to write their answers in the spaces provided in the passage.

3.4 COMPOSITION

The sampled group were also asked to write a free composition on the topic: 'What I would like to be in future'. Since reading and writing are closely related skills, it was thought that those learners who have mastered the skill of reading would have little problems writing the composition. The composition was used to gauge the learner’s proficiency in English. It was hoped that their language problems would also be revealed in the composition.

3.5 TEACHERS' QUESTIONNAIRE

A second questionnaire was administered individually to the English language teachers. The questionnaire-solicited information regarding their qualification, teaching experience and their views about the teaching of English. And particularly reading, the allotted time for teaching the subject, the availability of teaching resources such as books, desks, classes, staff-room, assistance from the school administration and the frequency of the school inspection by the officials of the Ministry of Education. The questionnaire was chosen because of its convenience and capacity to collect data.

Researchers (Goode & Hatt 1981, Hatch & Farhady 1982, Brown 1988) have acknowledged indeed the value of a questionnaire as a tool for gathering information in research. By definition a questionnaire refers to a device for securing answers to questions by using a form which the respondent fills in himself. It has been argued that the important thing to bear in mind when constructing a questionnaire is that
every item in a questionnaire must ideally constitute a hypothesis or part of a hypothesis in itself (Kothari 1996). In other words the inclusion of every item should be defensible on the grounds that the researcher can logically expect the answer to be significant for his central problem.

Similarly as a tool for extracting information, a questionnaire, Gopal (1970) notes 'should be as comprehensive and relevant to the study as possible'. In its design it should have questions regarding personal details (discussed below) since some of these may have a direct bearing on the kind of response expected. For instance, while designing a questionnaire, information regarding the sex, age, socio-economic background and motivation of the respondents may also be collated. Also it may be useful to elicit information regarding the environmental conditions like the facilities available, time spent on the lesson, the teacher, the workload of the teacher, the administrative support etc. All these are extremely important variables. Indeed they can be sub-divided into: personal variables and environmental factors.

3.6 PERSONAL VARIABLES

1. Age

In a study of this nature age is vital. For the findings of the study to be plausible, the respondents must be of similar age undergoing the same treatment. In this way the results may be seen to be valid. However if the characteristics of the respondents are divergent, then this may interfere with the interpretation of the results since they introduce extraneous variables. While designing the questionnaire therefore it was regarded important to determine the average age of the respondents in order to ensure that they belonged approximately to the same age group. In our case all the students were of 17+age.
2. Sex

The percentage of girls and boys among the respondents was considered since there may be significant differences in their responses based perhaps on their biological, psychological and social factors. It was considered fair to include an equal number of both sexes. This is particularly important in view of the fact that there are certain abilities and interests which distinguish the two sexes. While distributing the questionnaires to teachers, the same principle was used so that in the end there was a near parity between men and women in the number of those who filled the questionnaires.

3. The Socio-Economic Background

Learners with different economic backgrounds are expected to be academically and occupationally different. A learner coming from an educated and/or rich family may be advantaged in terms of accessibility to learning resources than a learner from a poor disadvantaged background.

4. Motivation

Studies in education (see Slavin 1988: 356-399) have shown that motivation is a crucial factor in the learning process. If a learner is motivated then the work of the teacher is made a lot easier. It is the requisite ‘engine’ for learning. Davison & Kanyuka (1992) in their study of ‘Girls Participation in Basic (Primary) Education in Southern Malawi’ showed that teachers play a pivotal role in influencing the academic motivation of their pupils. The study further found that teachers’ negative or positive expectations of what their pupils can accomplish in class exercises and in the national examinations had a direct impact on pupil performance. From their observation of the interaction between teachers and pupils in all the four schools, it became clear that teachers’ attitudes toward and expectations of female pupils are...

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2 In Comparative Education Review. Vol.36. No.4, pp.446-466.
critical in encouraging them to take an active part in class activities. Therefore
consideration of the positive and negative motivation towards the subject being
studied is significant. For example girls are believed to be more motivated to learn
languages than boys. Similarly if the teachers are motivated and have a high morale in
their work they will be able to teach effectively.

3.7 ENVIRONMENTAL FACTORS

1. Books

Library and other teaching materials available to both teachers and students are also
factors that motivate and stimulate the students in their studies, and teachers in their
teaching. These should therefore be taken into consideration in the study because they
are the necessary tools both for teaching and learning.

2. Learning/Teaching Aids

Observations regarding the facilities available in the classrooms like seats, desks,
lighting, and chalkboard, teaching aids etc. may also be elicited and taken into
consideration. This is because, while the actors in the learning process (teachers and
students) may be highly motivated in their respective roles, if there is no sufficient
space for instruction then they will be stifled. Similarly if the learners are crammed in
small stuffy and uncomfortable rooms, then the students are also not likely to learn
effectively.

3. Time

The time devoted to the teaching of the subject and the total number of hours
allocated in the curriculum may also be of relevance. All these help in arriving at
conclusions. For example a correlation of this factor with other factors can help one in
drawing conclusions especially in issues such as student comparisons in test
performance etc.
4. Class Numbers: Student/Teacher Ratio

The number of students in class has a bearing on the teachers’ teaching effectiveness. If the students are of a reasonable number then the teachers are able to accord particular attention to each learner. He is able to teach better, give assignments and mark easily. In this way he is able to detect their problems and thus guide them accordingly. In the process the students are able to master the language skills. However if the student numbers in class are overwhelming then the teacher may not be able to attend to each student. He will not be able to teach and give assignments frequently because the student numbers militate against this. The teacher’s effectiveness is therefore impaired.

5. Work Load

The teacher’s workload is closely related to the above variable. In some schools language teachers are expected to teach several streams, while in others, he is expected to teach additional subjects other than English. In the process his workload becomes heavy and therefore he may not have time to prepare lessons thoroughly and also teach efficiently and effectively.

With these factors in mind, the teachers’ questionnaire is composed of relevant questions to the study. It is also limited in its strength and scope. It was constructed in such a way that it would not require too much time for the respondents to fill in the answers. It is a highly structured one, posing all the possible alternatives for the teacher to choose from. In this way, it was thought that the information regarding their teaching and their perception of the teaching of reading would be effectively gathered.

The administration of the tests and questionnaires was supervised at all times by the investigator. This was to ensure consistency in the collection of the data. Over the two days in which the study was conducted, the total time spent on administering the
student questionnaires, the Cloze and Comprehension tests ranged from ninety minutes (90) (double lesson) to one hundred and ten (110) minutes. A double lessons plus twenty minutes more depending on the size of a particular class. Allowance was made for the students to rest between the administrations of the questionnaire and the tests.

3.8 OBSERVATION

In order to get more information from the study, observation of some lessons as they were taught in the sampled schools was also done by the researcher. This method was also chosen because of its advantages. Kothari (1996: 116) while describing this method states that ‘observation is the most commonly used method especially in studies relating to behavioural sciences’. Observation becomes a very useful tool and method of data collection for the researcher when it serves a formulated research purpose, is systematically planned and recorded, and is subjected to checks and controls on validity and reliability.

Under the observation method, information is sought by way of investigator’s own direct observation without eliciting any response from the respondent. Indeed Gopal (1970: 174) describes it even more succinctly:

‘Observation comprises the recording of data as they come to the investigator’s notice when he plays largely a passive part. It consists in correlating facts in the direct knowledge of the investigator. It is however, more than merely seeing things, it is really seeing with a purpose (author’s emphasis). It is in fact looking closely and purposively at the situation as a whole and at the same time taking in the results without completely losing oneself in the situation’.

Basically it is the personality of the observer that makes for accurate observation. If he is attentive and adept at perception, that is, able to recognise facts and identify sensations (in what is being observed) and correlate the observed phenomena, then he will be successful in his endeavours.
Experts in social science research, such as Kothari (1996), Goode & Hatt (1981), and Gopal (1970), have listed four distinct purposes which observation serves as a research method. It is useful in:

(a) studying collective behaviour and complex social situations;
(b) the following up of individual units composing the situations under study;
(c) understanding the whole and parts in their interaction and finally;
(d) getting the details of the situation that are not overtly stated.

To serve these purposes, observation has to be accurate and this demands of the researcher a background knowledge and experience. In other words the researcher to be a good observer should be thoroughly conversant with the problem under investigation.

While addressing himself to reliability, Gopal (op.cit) indicates that if observation is to serve a scientific purpose it must be reliable regarding both the facts and inferences. Indeed he asserts that reliability depends on three factors:

1. the technique and tools used,
2. the kind of situation observed and
3. the quality of the observer.

He however warns that ‘a well-developed observation schedule will be only as good as the skill of the person who uses it’.

When choosing this method to get additional information on the study, special consideration was placed on its advantages. For instance, the main advantage of this method according to Kothari (1996) is that subjective bias is eliminated if observation is done accurately. Secondly, the information obtained under this method relates to what is currently happening; it is not complicated by either the past behaviour or future intentions or attitudes. Thirdly, this method is independent of respondents’ willingness to respond and as such is relatively less demanding of active cooperation
on the part of the respondents as happens to be the case in the interview or the questionnaire method. While using this method, the researcher should keep in mind things like: what should be observed? How the observation should be recorded? Or how the accuracy of observation can be ensured.

Keeping these in mind in our study care was taken to ensure consistency in the observations. To this end an observation schedule was drawn which was used in observing the lessons in the sampled schools. The schedule covered all the areas that were deemed necessary and of relevance to the study. The schedule was also used to ensure consistency both in the things to be observed throughout the sampled schools, and also in the scoring.

3.9 OBJECTIVES

The research study had the following as the major objectives:
1. To establish the reading problems of form three students;
2. To identify school factors that inhibit or promote the teaching and development of good reading abilities or habits;
3. To assess teachers’ perception of reading as a skill and their approaches to the teaching of the skill.

The study also had the following as the subsidiary objectives:
a. To determine the reading sub-skills in which pupils are good and the ones they are poor in;
b. To gauge their language proficiency;
c. To determine whether teacher’s professional qualification has a bearing on the quality of reading instruction that goes on in the schools.
3.10 HYPOTHESES

The research was based on the assumption that:

1. Students, who have not fully mastered the reading skills, and need to decode or interpret function or content words, have difficulty in reading texts.

2. Students who are adequately taught reading skills have relatively few reading problems in decoding or interpreting reading texts.

Having described the procedure used to gather the research data, let us now look at the data analysis. This will be analysed in the next chapter.