Formal education is usually characterised by statements of educational objectives. Evaluation provides the means of finding out whether these objectives are being attained. Formal testing provides base-line information for this evaluation.

Observations have shown that the practice of formal assessment especially by means of external examinations has far reaching effects on curriculum practice in schools. For instance Bude (1979) reports that those skills that were not tested by the former certificate of primary education (C.P.E) were ignored in teacher practice.

The call for open-ended questions in primary school mathematics remains apparently unanswered. The Report of the National Committee on Educational Objectives and Policies (1976) recommended the inclusion of open-ended questions in C.P.E mathematics paper. Although this recommendation has not been implemented the Kenya National Examination Council (K.N.C.E) through the annual Kenya Certificate of Primary Education (K.C.P.E) Newsletters continually urge teachers to include open-ended questions in their classroom tests.

To the researcher such information seemed to suggest that a gap exists between teacher practice and the expected testing practice. The researcher therefore wanted to find out whether this gap exists and why.

For many years performance in K.C.P.E. Mathematics has remained very poor. One way, in which performance can be improved, according to the K.N.E.C. is for teachers to promote speed and accuracy by using time limits in testing. The researcher wanted to find out how far the council's advice has influenced teachers' tests in mathematics.

The researcher also noted that available data on teacher assessment point out that most teachers have many pitfalls in their function of measurement and evaluation. Smith (1972) gives the instance of overuse of same tests by teachers. Such observations may be significant but there is little documented evidence about them as regards the Kenya teachers.

Primary school teachers in Kenya have been accused by the Ministry of Education of not being able to use local examinations to achieve educational purposes yet no public document based on research is available. Inspite of this the Ministry of Education issued a ban on local examinations effective 1st January 1992. The researcher planned to investigate the Kenyan situation vis a vis the recommended standards with an aim of identifying some of the alleged failures in teacher practice.

This study was conducted in Githunguri Division in Kiambu District. The purpose of the study was to achieve the following:

1. Find out the relationship between the structure and content of the K.C.P.E. mathematics and that of teachers’ tests in mathematics.

2. Gauge the validity and reliability of teachers' tests in mathematics.

3. Make qualitative statements regarding the way teachers interpret test results.
4. Describe some of the problems and personal limitations of teachers in their function of formal testing in mathematics.

The practices that were studied included:

1. Test scheduling.
2. Test construction
3. Test administration.
4. Test scoring.
5. Interpretation of test results.

Factors considered in the study were:

1. Practical factors such as teaching load and availability of materials.
2. Teachers' academic and professional background.
3. Special training and professional growth.

Students who show competence in mathematics are likely to have better opportunities for further education, training and employment: A knowledge of mathematics is also vital for daily life functions. A study of teachers was meant to provide information on how mathematical foundation is being established in primary schools and how the practice can be improved. Results of the study were therefore expected to benefit the education community of Githunguri Division as well as the various education agents in Kenya.

Githunguri Division is divided into three Educational zones namely, Komothai Zone, Githunguri Zone and Githiga Zone. The division has a total of 48 schools.

A stratified random sample of 16 schools was selected from the Division from which a sample of 32 teachers was selected from standards seven and eight mathematics teachers.

A questionnaire was developed and improved through piloting in three schools. Special forms were also prepared to provide a means of studying teachers' tests and records of test results.

The selected schools were personally visited by the researcher who administered the questionnaire and also studied teachers’ tests and records for test results. In this exercise it was found necessary to employ the services of a research assistant. Further relevant data was obtained from school heads and education offices.
Frequency tables were used to organize the data into categories whose comparison was further provided by using "means" and "percentages".

Observations of the study led to the following general conclusions:
(a) Most of the teachers were men of relatively high academic and professional qualifications. The teachers taught more than one mathematics classes.

(b) Teachers’ attempts to plan for mathematical testing were hampered by scarcity of materials, out of class activities, overloaded syllabus and rigid timetables.

(c) Testing procedures and measures were in general inadequate. It was observed for instance that teachers made no specification tables and did not moderate the tests or samples the items. Test administration and objective test scoring were deficient for obvious expert limitations.

(e) Overuse of objective items led to limited diagnostic analysis of performance. Interpretive analysis was adversely affected by too much dependence on single test results and very few interpretive and follow up aspects.

(f) The teachers had language and mathematical difficulties inspite of their relatively high qualifications and long teaching experience. Most teachers were not qualified in mathematical assessment. The teachers also faced problems such a large classes, too many lessons and inadequate materials.

The following were the major recommendations from the study

(a) It is important to encourage further specialisation in the teaching of mathematics in upper primary classes.

(b) Schools, parents and the larger community should facilitate teachers’ tests by providing avenues for materials procument. The primary curriculum also needs reviewing for purposes of balance between teaching and assessment needs.

(c) To improve test validity the mathematics teachers should make use of specification tables, test moderation and item sampling. A wider range of test administration and objective test-scoring measures should be used for better reliability.

(d) Teachers tests reflect the K.C.P.E. mathematics in view of test length, use of multiple-choice items and greater emphasis on number application skill. However, the tests are poorly assembled and show disregard of total syllabus emphasis. More open-end questions and conventional formats should be used and the tests should not be duplicated.

(e) Unless teachers make use of more aspects of diagnostic and interpretive analysis their conclusions and reports about pupil’s performance in mathematics will remain highly questionable.
(f) Among other agents, the Teacher Service Commission, the Ministry of Education and Teacher Colleges should liaise in response to the urgent need to provide motivation, encouragement and assessment training to mathematics teachers.

The researcher also need noted that the study could be improved through the following measures:

(a) Replicating the study at a district level or higher.

(b) Changing the timing of the study to make possible the observation and testing of pupils.

(c) Consideration of other possible factors such as school administration and teachers' socio-economic status.