Thesis

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Kenyan teachers' and students' perception of educational evaluation and academic performance in secondary schools

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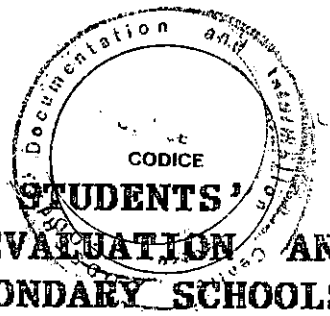

KENYAN TEACHERS' AND STUDENTS' PERCEPTION OF EDUCATIONAL EVALUATION AND ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS.

A CASE OF KAKAMEGA MUNICIPALITY AND KABRAS DIVISION OF WESTERN PROVINCE.

BY

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A Thesis Submitted to the School of Graduate Studies, in Partial fulfilment of the requirements for the Degree of Doctor of Philosophy in Educational Psychology.

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DECLARATION

This is my original work and has not been submitted for a Degree in any other University.

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DATE 14th March, 1997.

This thesis has been submitted for examination with my approval as a University Supervisor.

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DEDICATION

To my beloved late mother Maria Lilala.

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"Knowledge and Wisdom are like a bright torch of light in darkness"

MULAMBULA MUSAKHULU.

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ABSTRACT

KENYAN TEACHERS AND STUDENTS' PERCEPTION OF EDUCATIONAL EVALUATION AND ACADEMIC PERFORMANCE.

The purpose of the study was to investigate the nature of students' and teachers' locus of control, perception of school environment and perception of evaluation based on the tetrahedral pyramidal model (4-PM), and whether these factors are influenced by gender, type of schools, age and level of education among students; and by gender, level of training and teaching experience among teachers. The research also probed the relationship between perception of evaluation and academic performance and whether the relationship is influenced by type of school, gender, age and level of education among students.

The research was carried out in Kakamega district of Western Province of Kenya using 206 Form Two and 168 Form Four students. A total of 40 teachers also participated in the research as subjects. The data was collected using questionnaires and analyzed using percentage, mean, standard deviation, ANOVA, t-test and correlation coefficient (r) statistics.

Data analysis revealed that the nature of the students' and Teachers' locus of control, perception of school environment and perception of evaluation were neutral. The relationship between perception of evaluation and academic performance significantly indicated that the evaluation schema among students in secondary schools was ambivalent and most of the students are experiencing an evaluational syndrome. This mode of schema implies that, there is confusion in schools about the importance of self-initiative, environmental factors and evaluation system in education. This as well, means that the need satisfaction from the education system is low.

In view of the findings, it is recommended that all parties involved in education, particularly students, parents, teachers and educators should strive to achieve a positive schema that will realize high academic performance and increased need satisfaction. This can be achieved through propagating positive attitudes towards all the identifiable components in the 4-PM, since, according to the Gestalt Principles the whole is greater than the parts.

S.M.M.

CHAPTER ONE

THE PROBLEM

1.0 INTRODUCTION

Perception is the process by which an individual collects, analyses and interprets information with the help of the sensory organs and sometimes makes judgement according to the available information. Perception is a psychological process that occurs consciously or unconsciously in human beings. It involves the reflection of an individual on how what is perceived affects his or her life, the lives of other people and its effects on the society. Sometimes, a person may not be aware that he is engaged in the process of perception. Through perception one carries out evaluation. Evaluation is the process of delineating, obtaining and providing useful information for judging or making decisions. It is a process that allows one to make a judgement about the desirability or value of something. Every activity carried out by an individual is subjected to some form of evaluation however simple it may be. Evaluation is commonly practised in educational institutions, hospitals, government ministries and commercial institutions.

Evaluation is a crucial aspect in the school's curriculum. It is a systematic process carried out to determine the effectiveness and achievement of the school's curriculum, and the performance of the students and teachers. One of the main underlying psychological factors that makes evaluation crucial in education is

accountability. Evaluation using tests and other forms of measurement is an intrinsic part of properly conceived system of accountability in education. This system refers to the acceptance of responsibility by those to whom the citizens have entrusted the public service of education. The system acknowledges the public's right to know what actions have been taken in the schools it supports, and how effective these actions have been.

Accountability is closely related to what is known as the attribution process. This is a process in which the cause and effect, or the outcome of what goes on in school has to be attributed to the individual (or personal casualty) or the environment (impersonal casualty). The attribution of responsibility is an important aspect in the behaviour of an individual towards other people. In this respect, therefore, the attribution process is related to educational evaluation and it affects the way a person behaves in the society.

A pertinent question that arises from the consideration of attribution process is whether a person should be held accountable for the effect produced by his behaviour. This question is basic to the evaluation system in education. Some other very pertinen questions in this respect included. Who should be held responsible for consequences of a specified programme? Should the teacher be held responsible for his/her performance? should the parents be held responsible for the performance of their children? These are among many of the questions that need

to be answered and to a few of which this study addressed itself. The answers to these questions greatly depend on how the individual or group of individuals perceive evaluation, and its relationship to performance.

The perception of educational evaluation is a complex phenomenon because concepts of educational practice, including practice in evaluation, are not natural entities. They are constructions of the mind. Such constructions are influenced by the leading values of the society in which practitioners function. Further more, the character of assessment procedures are such that they place great reliance upon quantification, with the aim of increasing the probability of replicability of the results. In the final analysis, this may limit, in a significant way, the data that can be used to understand schools, classroom and the kind of life students and teachers lead in them.

This mode of conceptualizing education, makes the accountability of educational products controversial and highly debatable. This in most cases is manifested whenever a new programme is implemented and the products have to be evaluated. This was very evident in the Kenyan situation when the first Kenya Secondary Certificate of Education (K.S.C.E) 1989 results were released to the public and there was a high failure rate. This resulted into a controversy as to who should be held responsible for the mass failure in the examination.

The Kenya National Union of Teachers (KNUT) came out in defense of the teachers. KNUT argued that the teachers

were denied any say concerning the examination. It strongly criticised the Ministry of Education and accused the Ministry for being responsible for the mass failure.

KNUT argued that, the Ministry of Education had included too much work in the syllabus for the time allowed, and expressed hope that:

> "The burden on teachers, pupils and parents can be reduced. As the situation stands now, we fear many can run mad as they are getting more than their brains can absorb. (Daily Nation Newspaper, March, 1990 P. 28 col 1)

However, by implication the statement above suggested that the teachers and students had been under stress from work overload of both quantitative and qualitative types; and if that was true they could not be held responsible for the mass failure.

As a result of the controversy over mass failure in public examinations, the students in Shikungulu Secondary school, Shiyalu Division, Kakamega District, deserted their school on the instruction of the parents (Standard Newspaper March 12, 1990, p. 3). The parents and students argued that lack of facilities was responsible for the school's poor performance. On the other hand, it was also reported that students at Ruthagati Secondary school in Mathira, Nyeri District staged a strike demanding the removal of the headmaster since according to the students, his negative attitude towards other teachers led to the poor performance of the school in National Examinations (Daily Nation March 5, 1990). The chief inspector of schools however, argued that the national mass failure of

students in the 1989 K.S.C.E was caused by the failure of the parents to provide the required facilities. It is clear therefore, that it is difficult in the absence of evidence to hold any of the parties involved in the education system accountable for the result of evaluating educational programmes.

Nevertheless, the controversy over who should be held responsible for examination results is not such a unique occurrence that it should be attributed to the introduction of a new education system. In the previous years Newspapers carried headlines such as : "Examination not fair to all students" (The Standard October 4, 1982, p. 6), "Examination, who is to blame?" (The Standard October 23, 1982, p. 6), "Examination, flop, blame on politics" (The Standard February 7, 1985 p.7), "Examinations are unfair burden" (Daily Nation June 8, 1985,p.7) and "Examinations failure: who is really to blame?" (The Standard February 22, 1987,p. 11). The controversy can be mainly attributed to the differences in the perception of evaluation and academic performance by an individual or groups of individuals.

In the evaluation procedure in schools in Kenya, specified measuring tools are used at different levels. In Kenyan Secondary Schools, public examinations are widely used as means (or tools) of evaluation of the education system.

The public examinations are not the only tools used in the evaluation procedure in Kenya, the following are also used:-

i) Mock tests

ii) End of term, mid-year and end year tests

iii) Class assignments and projects

iv) Class tests

v) Students' self-evaluation which includes peer-evaluation and self-evaluation

vi) Personality assessment

With the exception of v, the other tools are used to quantify the performance of students in schools. The students' self-evaluation is not popularly recognized as a reliable measurement method; as it entails a student setting tasks for himself to assess his ability or the way he perceives his academic ability; or the way a student is rated by fellow students. It is unpopular because it is believed that students on their own cannot set realistic goals and objectives for self-evaluation.

The other methods/approaches are mainly used by teachers to assess students so as to help them choose their careers, and predict performance in the public examinations. The need to use class tests to predict performance in public examinations in Kenya was emphasised as early as 1959 when the Advisory Council on African Education at its meeting on Tuesday November 24, 1959 (Minute 14/59) agreed that :-

> .... selections (to high school) would have to be made on the advice of Headmasters of Secondary Schools before the results of the school

> certificate were published to avoid loses of one term out of 6. Then rectify mistakes made in selection by Headmasters after the school certificate results were published.

This was done to avoid the delay caused by the results being ready when the schools were open and therefore students joined high school during the second term of the academic year.

In the Kenyan education system, end of term, mid-year, and mock tests results are supposed to be forwarded to the Ministry of Education, but they are not used for any known purpose to the public. The question that needs to be addressed is whether the results from mock tests should be used in assessing the pupils in K.C.S.E. or be completely discarded.

The performance in public examinations is used as a measure of an individual's ability to participate in National Development. Those who perform well are assumed to have higher chances of continuing with further education and getting good jobs in society, although there are exceptions to this rule when the idea of quota system and other intervening variables is considered. This occurs when the individual's social, economic and parental back-grounds are considered against his performance in the examinations. For instance, in 1959 before independence, the Advisory Council of African Education in Kenya resolved that Alliance High School was to recruit 75% of its own pupils to join high school in Form Five and Catholic schools were to recruit catholic students all over the

colony. Under this system, students in European and Mission sponsored schools had an advantage over those in Arab, Asian, Indian and African schools. Currently in Kenya, according to the quota system, 85% of the Form one students in provincial or district schools are supposed to be selected from the schools in the local district or province.

Whatever the case, under similar conditions, it appears public examinations continue to determine the fate of students. There are people in the society who have made it to the top because they were able to pass several examinations. There are some who have been prevented from taking up certain responsibilities in society because they had been unable to attain the required standards at different stages in their education.

Evaluation of academic performance, therefore, can have an ambivalent effect on the society. It can divide the society into two main groups: those who are successful, and those who are not. This has led to criticism against the effects of evaluation methods and their plausability.

The evaluation methods in Kenya have been criticised for (i) being inconsistent in awarding marks; (ii) encouraging favouritism in awarding marks; and (iii) incomplete coverage of curriculum. The examinations have also been criticised for the following reasons:-

i) Leading to discrepancy between the professed national educational aims and the actual accomplishments. Thus, it has been argued

that graduates from the education system have been unable to fit in the society and actively participate in development activities.

ii) Splitting the society and bringing about inequality and bad behaviour patterns in the society. Some school graduates who pass examinations by cheating propagate the cheating behaviour in the society.

iii) Being used for the wrong functions. The examinations have been criticised for being used to categorize students as those who have passed or failed. Although they are useful in the allocation of the limited resources, they should also be used to assist in the understanding of the learners. The examinations are mainly achievement tests and those who do not do well are considered to have achieved nothing in their school life and are not considered in the economic planning of the society. There is concern only for those who have passed.

Apart from the general criticism about examinations, the Gachathi Report (1976,p.127) specifically pointed out that, the school education system in Kenya was mainly dominated by examinations. It observed that the educational process in the Upper primary was dominated by examinations, which to a very large extent determined the

curriculum and methods of teaching and learning. There was lack of opportunity throughout the system; to finding out, to observe and creative work; practical work and subjects which were not examined were neglected and undervalued.

Efforts to improve the education system in Kenya have led to the establishment of an 8-4-4 education system. This is, eight years of primary education evaluated by the Kenya Certificate of Primary Education (KCPE) examinations; and, four years of secondary education assessed by the Kenya Certificate of Secondary Education (KCSE) examinations; and a minimum of four years undergraduate degree course at the University. The Gachathi Report (1976) criticised primary examinations for favouring children who were attending urban schools because they had improved socio-economic back-ground, better qualified teachers and better schools. A study by the curriculum Advisory Commission in Kenya (1972), pointed out that there was a possibility that the primary examinations which were used as determinants of the fate of students favoured candidates with verbal skills to the detriment of mathematically gifted pupils and also favoured those from schools where education was conducted in the medium of English from class one.

All the public examinations in Kenya are centrally set by the Kenya National Examinations Council (KNEC) and evaluate a curriculum determined by the Ministry of Education. This in turn dictates the methods to be used in teaching. The teachers therefore have no freedom to

provide the kind of education which they may consider best suited for the students' needs. Therefore, their contributions in the new curriculum are minimal. Although Kenya National Union of Teachers (KNUT) had an input in the syllabus, the teachers were not satisfied with its contribution.

As a result of the emphasis put on examinations, it is possible that schools are so pre-occupied with students' passing the examinations that they provide an inferior environment for learning. The teaching is likely to be geared towards examinations such that anything that is not examination oriented is not taught, even if students may be interested in it.

Problems resulting from evaluation grades are likely to be symptoms rather than primary causes for the educational problems. There is an intense competition for educational opportunities. However, there is concern for those responsible for teaching and for the advancement of knowledge in higher institutions about the quality of students who graduate from schools and the standard of their previous education. Thus, sometimes, some students are admitted to the institutions of higher learning as a result of cramming and regurgitation of facts. The students find themselves lacking the required learning skills, such as study and communication skills. They therefore present peculiar and difficult problems in teaching at institutions of higher learning.

It is absurd that schools are putting stress on the examinations as the main method of evaluation, with the belief that the problem with education is to find better ways to make students pass examinations. Probably the teachers should put much stress on development and application of new teaching methodology, with the aim of helping students to be constructive individuals in the society. In setting examinations importance should be put on the validity of the examinations. Too often, this criterion is over-looked because of the other considerations such as economy of time of administering and/or summarising the results. The examinations therefore, reduce evaluation to just marking and single grading, that is pass or fail, which is the narrowest concept of evaluation. This approach fails to distinguish between measurement of progress and the degree to which students meet certain standards, relative or absolute according to the needs of the society.

Examinations as means of evaluation have been criticised in that they only measure simpler variety of objectives and mental processes; but the more important and complex the objectives the less there is a systematic and dependable device for examining them. A special weakness of current evaluation program in Kenya may be the fact that the progress of the students towards the achievement of educational objectives is evaluated or interpreted without sufficient knowledge of the nature of students as learners and the nature of instructional programme. Neither the

unique pattern of objectives nor the unique backgrounds of the students are taken into consideration.

Evaluation of achievement tends to be confined to the use of paper and pencil tests which cannot cope with the expanded range of objectives, because the newer objectives, are complex and yet intangible. For example, in the 8-4-4 education system teachers are expected to evaluate such qualities as patriotism, loyalty, mindfulness of other people's welfare, honest and the likes. The behaviours represented by them cannot be compressed into an objective short answer test.

With regard to influence of examinations on education, Brimmer and Pauli ((1972, p. 21-22) expressed feelings of the following nature:-

> ...Where promotion is in large part dependent upon examination success, the examination procedures have a restrictive effect on the transfer between grades. It is widely recognised that marks, whether they are obtained from teacher-made tests or examinations, are expressions of in-consistent, subjective judgements by the teachers on the basis of unreliable tests or written examinations of unknown validity... At their worst they are hazards, they do not recognise the continuity of learning, which is not divisible into discrete and convenient administrative packages.

Great faith in schooling and passing examinations as a means of evaluation and a first priority in Government budget and education, may not solve the problem in education. Hauson (1974, p. 2) stated that:-

> Unfortunately, the hardest problem in education cannot be solved by budgets. They are not problems of education expansion, but education re-thinking. Education should not be equated with schooling and passing examinations.

Although there are criticisms against evaluation methods used in schools, it does not mean that evaluation methods are valueless. Evaluation helps to provide evidence on which educational decisions can be made. A decision made on the basis of some evidence is better than a decision made without soliciting any evidence. Evaluation is a complicated procedure and flaws in the process cannot be taken as enough evidence to do away with evaluation. What should be advocated for is the improvement of the evaluation methods. Although the critics raise a few valid concerns, in general, they also do not understand much about the field of measurement, and as a result their criticisms are frequently invalid.

To support the use of examinations it can be argued that, measurement is a technical field, and it cannot be understood, let alone criticised intelligently, without some mastery of the content.

If tests are misused, this should not lead to the conclusion that testing is bad; rather it should bring to the awareness of educationist the need of educating people on the correct use of test results. Most of the problems regarding test misuse relate to the overgeneralization made by users, not to the fact that the tests themselves are invalid. It may be true that tests predict imperfectly, but even other prediction procedures may predict imperfectly.

The setting of educational standards, according to the critics of evaluation methods, is arbitrary. This may be

true, but the standarda are politically and economically influenced. If standards are too high and too many students fail, then there will be a public outcry about the quality of schools and the irrationality of the standards. If the standards are too low, the programmes become meaningless, and there will again be an outcry about the quality of the schools. In this respect, it may be correct to argue that critics of evaluation, pitch tests against non-existent predictors of the ability of the students in school.

Apart from the public examinations which are administered by the Ministry of Education through the Kenya National Examinations Council, teachers within the schools use general observation of behaviour and class tests to evaluate the progress of the students. The purpose of the teachers using these other methods of evaluation is to estimate the ability of the students in the public examinations. However, the reliability of these assessment methods is not quite known. The views expressed about the public examinations also apply to these other methods of evaluation that are applied internally by the teachers.

The class tests, end of term tests, mid-year tests and end of year tests are used in some schools to stream the students. The Ministry of Education only allowed mocks for students in final (examination) classes, but only with permission.

The Ministry of Education (Daily Nation, Thursday July 21, 1988 p. 1) noted that :-

> Some districts had set illegal examination councils to examine students from standard four to standard eight. In some cases, even standard one children were subjected to 'Mock' examination. This led to high examinations fees being charged against parents.

The Ministry of Education pointed out that centralized mock examinations were no longer justified in the 8-4-4 system, which was expected to rely on continuous assessment tests conducted by individual schools. According to the Ministry of Education, centralized mock examinations ignored the fact that examinations were not the objective of the education system. The Ministry argued that centralized examinations denied the teachers the opportunity to have personal touch with pupils. The Ministry made these directions because some district Education Officers had been setting and marking mock examinations centrally, right from zonal level, hoping to improve the performance of the pupils in the Kenya certificate of Primary Education.

Class tests have also received great concern. There have been cases of streaming students according to their performance in these tests. Those who do well form a class and poor performers form another class. This classification based on performance on tests sometimes leads to antagonism between different streams of students in the school. Some streams consider themselves better than others in a particular activity and may even result into physical confrontation. Students in some streams,

because they are considered to be of low quality, present discipline problems in schools and even resort to the use of drugs; thus they pay very little attention to the teachers' instructions.

The mock tests are very crucial in schools. The performance in mock tests is supposed to be a good predictor of performance in final public examination. In view of this, mock examinations have received a great attention in the Kenyan education system. This led the Ministry of Education to slap a ban on mock examinations in 1988, particularly centralized District Mock Examinations for non-examination classes. The ministry took this step because teachers and education officers had extended the concept of mock examinations to all classes. Even parents complained that children were being forced by teachers to repeat classes very many times. The parents claimed this was wrong use of class tests. The Daily Nation Newspaper (Saturday March 10, 1990, p. 3) reported the following case:-

> In Nyeri, some primary school authorities were forcing children to repeat. Weak pupils who don't attain the pass mark set by the class teacher are asked to repeat even if the pupils and their parents do not want it. In one example a pupil has been forced to repeat standard one once, twice in standard two and once in standard three, thus spending seven years for a three year course.

As a result of the great concern about what goes on in school various researchers have investigated the factors that affect learning and performance in schools and even institution of higher learning. The basic aim of these

researchers was to make available findings which can be used to improve learning and performance in schools, and thus the education system.

One of the factors that has received attention is the self-concept of learners. There have been suggestions from researchers that there is a significant relationship between self-concept and academic under-achievement; self-perception and academic achievement; and self-attitudes and academic performance. And that the relationship is stronger in boys than in girls. These researches which will be discussed in the literature review fell short of considering how the learners perceive the evaluation process; to which the present research addressed itself.

This study was designed to investigate the relationship between the teachers' and students' perception of evaluation and academic performance in Kenyan Secondary schools in Kakamega municipality and Kabras Division. The investigation focused attention on the following:-

i) the nature of students' and teachers' perception of evaluation in secondary Schools;

ii) the students' self- perception in relation to public examinations;

iii) the factors which influence the perception of evaluation methods and self-evaluation; and

v) the relationship between perception of evaluation and academic performance based on

the tetrahedral pyramidal model of evaluation.

1.1 STATEMENT OF THE PROBLEM

From the foregoing it is evident that there is a great concern by teachers, parents, students, educators and the government about the role of function evaluation in schools. There is concern about the contribution of individuals in the society after passing or failing an evaluation exercise. This study made an attempt to shed some light on the problem of evaluation in secondary schools.

Specifically, it investigated how teachers and students perceive the following evaluation methods in secondary schools: public examinations, mock tests, end of term tests, teacher made (periodic tests) tests, class assignment and projects, students self evaluation and personality assessment (Teachers comments). The study also investigated the relationship between the perception of evaluation methods and academic performance under different school environments.

The specific problem of the study therefore was to investigate how various methods of evaluation used in the Kenyan system of education were perceived in secondary schools. It further investigated the relationship between perception of self, evaluation methods, and academic performance. It also investigated the nature of evaluation schema in secondary schools. The study therefore, in

general attempted to find answers to the following questions:-

i) How do students and teachers perceive the evaluation system in the Kenyan secondary schools?

ii) How do students perceive their abilities in relation to the Kenyan public examinations (locus of control)?

iii) What is the nature of the teachers' and students' locus of control in relation to school activities?

iv) What factors influence the perception of evaluation in Secondary schools?

v) What is the relationship between perception of evaluation and academic performance?

vi) What is the nature of the evaluation schema in secondary schools?

1.2 STATEMENT OF THE HYPOTHESES

Evaluation methods in education are of great importance and therefore the way they are perceived is crucial in the teaching-learning process and academic performance in schools. It is only through these methods that an indication on the achievement of educational objectives by students, teachers, curriculum planners, educational administrators and the community can be obtained. Criticism on the evaluation methods have led to experiments with new methods of examining and attempts at

improving old methods. For example, in Kenya there has been the introduction of essay writing at primary level, introduction of objective testing at all levels of education and stress on the value of practical work.

The importance of the evaluation methods emanate from the fact that they are supposed to maintain or raise the standard of education; act as incentive to students for more effort; act as an administrative device; and provide a tool for social engineering. Given the importance of evaluation in the life of a learner, it is probable that every student has to estimate his or her ability to face an evaluative situation. It also forces all parties involved in the education system to tackle the issue of accountability for the results of evaluation.

In the Kenyan Education there are two main public examinations used in evaluation, namely:-

i) The Kenya Certificate of Primary Education (K.C.P.E.), which is being offered after the first eight years of basic education at the primary level. The examination is mainly used to select students for secondary education.

ii) The Kenya Certificate of Secondary Education (K.C.S.E) is done after four years of secondary education. The examination is used for University selection and admission to any other post-secondary education in the country.

If there are any other methods of evaluation used in schools, they are used internally as predictors on how the students are likely to perform in the final public examinations.

The proceeding considerations led to the formulation of the following null hypotheses and objectives for investigation:

1. There is no significant relationship between self-perception of ability (locus of control) and academic performance.
2. There is no significant relationship between gender and self-perception of ability (locus of control) with respect to evaluation.
3. There is no significant relationship between gender and the perception of evaluation methods.
4. There is no significant relationship between perception of evaluation methods and academic performance of students.
5. There is no significant relationship between self-perception with respect to examination, and academic performance.
6. There is no significant relationship between the school type and the perception of evaluation methods.
7. There is no significant relationship between the perception of the school environment, and perception of evaluation methods.

8. There is no significant difference between the students and teachers in their perception of evaluation methods.
9. The teachers' teaching experience and level of training do not significantly influence the perception of evaluation methods.
10. The nature of evaluation schema in secondary schools is trivalent.

1.3 SIGNIFICANCE OF THE STUDY

Evaluation plays a very important role in education all over the world, and particularly in Kenya probably because of the capitalic orientation of the society. Education is considered to be the most precious heritage a youngster can be given by his parents. It is further accepted that the required education can be obtained from school : and the performance in examinations is a measure of the education acquired. It is therefore only through evaluation that educational progress or achievement can be measured. Placement of people in various careers is based on their performance on certain evaluation scales.

A study of this nature that deals with students academic performance was deemed to be of importance in education in Kenya. When one considers the frequency of disturbances in the schools that are related to evaluation, one can assert that the perception of evaluation methods has a significant effect on the general behaviour of students and also their academic performance. The common

disturbances include students rebellion against teachers; demonstration; parents rejecting certain teachers in some schools because of poor record of the school in academic performance. From the nature of the disturbances one can attribute the social and academic atmosphere within schools to the way students perceive their ability to perform well in public examinations in a particular school.

The above situation demanded for the undertaking of a critical examination of the situation within secondary schools. A study of this nature should be of fundamental importance in the development of evaluation methods of any country. If educators and decision and policy makers are equipped with proper knowledge about teachers' and students' perception of evaluation, they can be in a better position to provide a conducive atmosphere for evaluation and reduce the disturbances.

The study is also expected to contribute to knowledge on the popularity of the various evaluation methods used in Kenya Secondary schools and how they are perceived in schools by providing an evaluation schema. The study was concerned with the reflection of individuals on how evaluation affects their lives and the society. The individual may not be conscious that he or she is involved in perceptual evaluation of education, a process which may affect his academic performance. The perception of evaluation in secondary schools is a crucial factor because of the role it plays in accountability in education. This is a process which all parties involved in education

experience when trying to ascertain who should be held responsible for the services in education. The accountability process can greatly affect the academic performance in schools and the subsequent behaviour of the individuals in the society. The study results on perception of evaluation methods in education are likely to help to answer the question of who then should be held responsible for the quality of the education curriculum in Kenya. This is a controversial question in the Kenyan setting which is being posed on parents, teachers, students, politicians, decision makers in the Ministry and facilities recuurently.

The results of the study are likely to help the curriculum planners to understand how the content of the curriculum is evaluated within the schools and how the evaluational procedures are perceived; this will in turn help them in organizing the content of the curriculum. The teachers are likely to use the results to guide and counsel their students appropriately.

It is hoped that the results of this study will be utilized to improve the evaluation methods and learning conditions in schools. They will also be used to aportion accountability of education products among the parties involved in education. Hence it was necessary to carry out a research pertaining to the perception of evaluation methods in relation to academic performance.

1.4 LIMITATIONS

There are several factors which can influence academic performance of students in schools. This study did not consider all factors that are likely to affect academic performance due to the limitations of time and finance. The study only considered self-perception in relation to academic performance; perception of evaluation methods (public examinations, mock examinations, end of term tests (termly tests); class tests (periodic or teachers made tests); assignments and projects and school environment (gender, school type, school-relationships and physical facilities). These may therefore be limiting factors to the generalization of the findings from the study, in that they cannot be used to answer questions relating to all other factors that may be affecting academic performance.

1.5 ASSUMPTIONS

During the research the following assumptions were made:-

i) Teachers assessments of the learners is a true representative of the learners' abilities.

ii) At secondary school level, students and teachers are capable of carrying out reliable self-appraisal.

iii) The attitudes of teachers and students towards evaluation in education are paramount.

CHAPTER TWO

CONCEPTUAL FRAMEWORK

2.0 INTRODUCTION

From the statement of the problem in Chapter One, a conceptual framework of the study was developed. This Chapter therefore presents the theoretical basis of the study. The theoretical model of evaluation and variables of the study are described.

The theoretical model of evaluation that was developed was referred to as the Tetrahedral Pyramidal model (4-Pm). The model was conceptualised to consist of four dimensions, which were instrumental, objectival, source and functional. The four dimensions were hypothesised to be indicators of the need satisfaction in education.

The variables described in this chapter are academic performance as a dependent variable; and locus of control, perception of evaluation methods, school environment, type of school and gender, as the independent variables.

2.1 MODEL OF EVALUATION

The research was mainly concerned with the perception of evaluation in schools. It was therefore necessary to conceptualise a model of evaluation. Evaluation was conceptualised in the study to have four dimensions, namely:-

i) Instrumental

ii) Objectival

iii) Source

iv) Functional

Each dimension consisted of what were known as elements.

The instrumental dimension was concerned with the instruments that are used during evaluation. Examples of the elements in the instrumental dimension were :- Public National Examinations, Mock Examinations, Terminal tests, Periodic Tests, Class assignments, class projects and Teachers' comments.

The objectival dimension included what was evaluated. The elements of the objectival dimension were referred to as objects. Examples of the objects were academic achievement, students' character or personality, teacher effectiveness and program's success.

The source dimension dealt with who should have the authority of carrying out the evaluation process. Examples of elements that should have had the authority were parents, students and leaders of the society.

The functional dimensions of evaluation was made up of the uses, or purposes and goals of evaluation. Examples of the elements of the functional dimension were:- enabling students to choose their careers, predicting future performance, motivation of students, enabling students to fit in society while in schools and outside school, monitoring academic progress and finding out the problems of students.

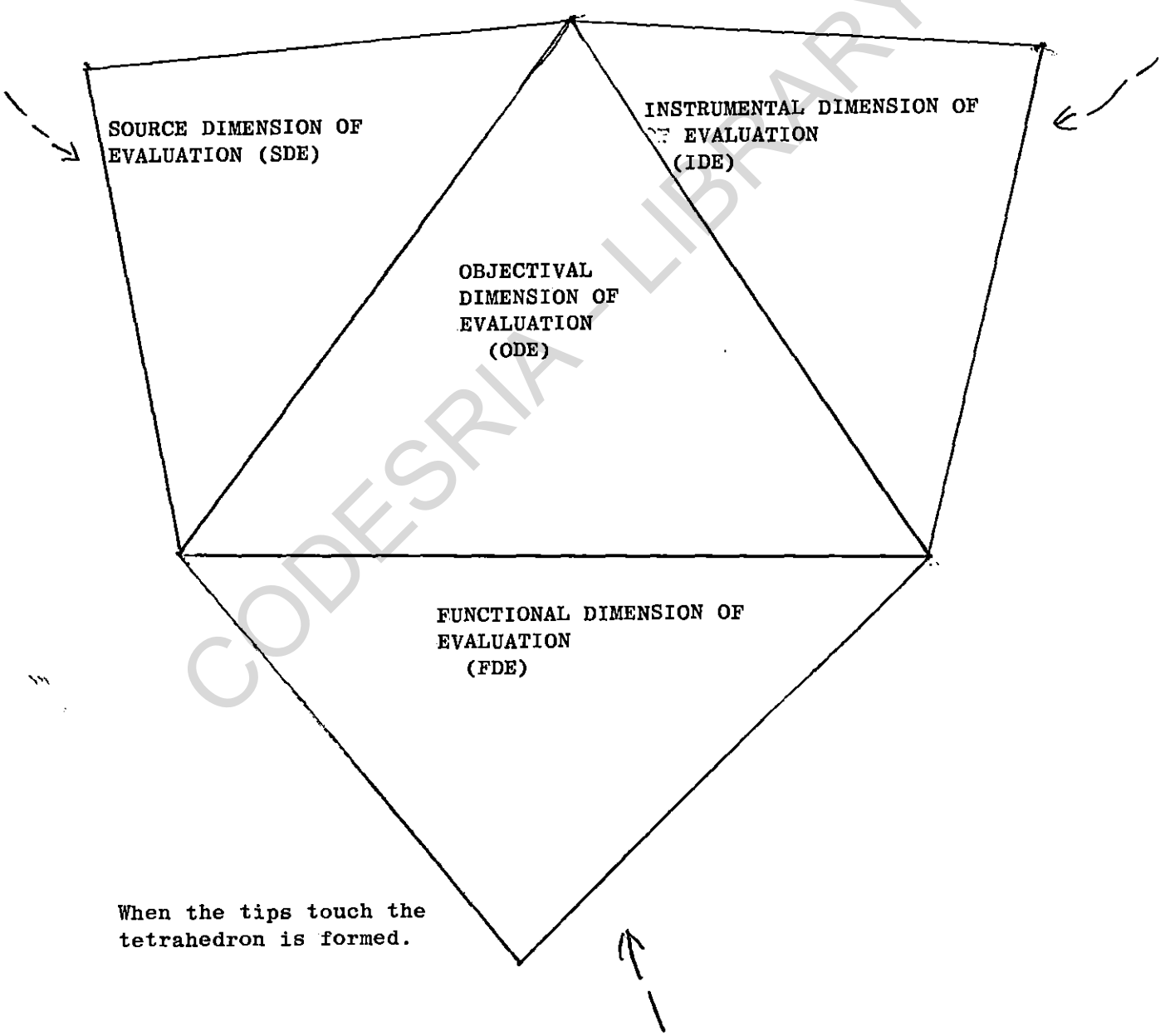
The four dimensions of evaluation were represented diagrammatically by what was known as the Tetrahedral

pyramidal model of evaluation. The model is diagrammatically represented in figure 2.1 as an open pyramid. The objectival dimension was situated at the centre of the other three dimensions because it constituted a link among the other dimensions. To illustrate the

linkage value of the objectival dimension, an example is given follows :

FIGURE 2.1

The Tetrahedral Opened Pyramidal Model (4-PM) of Evaluation.

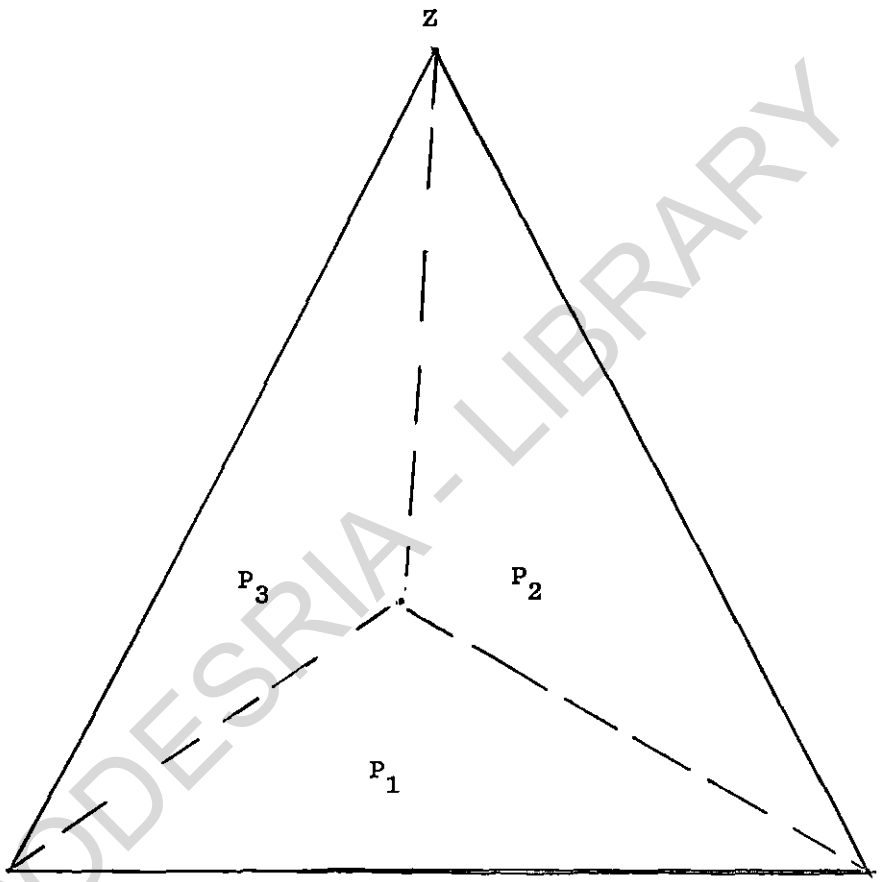


A component in the source can also serve as an object; for instance during self-evaluation; a teacher who assesses his or her effectiveness of teaching is to some degree serving both the purpose of a source and object. When a teacher tries to find out the effectiveness of mock examinations in predicting future academic performance, the mock examinations is servicing both purposes of an instrument and an object.

The objectival dimension formed the basis of the pyramidal model when it was folded to form the pyramid shown in figure 2.2.

FIGURE 2.2

Tetrahedral pyramidal model (4-PM) of Evaluation.



KEY

WXY: Phase 1 (P1) the Base of the pyramid which is the objectival dimension

WYZ: Phase 2 (P2) the instrumental dimension

WXZ: Phase 3 (P3) the source dimension

XYZ: Phase 4 (P4) the functional dimension

The apex of the pyramid (Z) where three phases 2,3 and 4 met is referred to as the maximum need satisfaction. This was considered to be the ultimate indicator of the level to which the objectives being evaluated are achieved. It was hypothesised that the need satisfaction is rarely achieved and that is a possible explanation for the frequent changes in education in order to increase the level of need satisfaction.

The phases in the Tetrahedral model can be summarised by the statement that the source must identify the object to be measured by a particular instrument in order to serve a certain function. Thus, when the teacher is the source of evaluation, he/she must have a crystal clear concept of the object to be measured, for example mathematical achievement after covering specified topics. After specifying the object, the teacher should then identify the appropriate instrument to measure the mathematical achievement so as to serve a specified purpose. If there is no functional value attached to the evaluation process, then the idea is dropped.

Any evaluation carried out without a clear conceptualisation of the four dimensions, with reference to

the specific element in each dimension is likely to be meaningless. Evaluation (V) therefore can be considered as a function of the sum of the source dimension (SDE) Instrumental dimension (IDE) and functional dimension (FDE) as they are moderated by the objectival dimension (ODE). This can be symbolised as :-

V = f (SD + ID + FD + E) < -> OD

E = some error term

Where < - > represents the moderating effect of the objectival dimension.

This model implies that without a clear object, the importance of evaluation tends toward meaninglessness.

Using the developed tetrahedral model of evaluation a schema was derived. The evaluation a schema showed the sum total of the cognitive and effective elements of evaluation. There can either be a group of an individual evaluation schema. In this study a group evaluation schema of the students was considered. The following were the steps used in deriving an evaluation schema:

i) instruments were constructed to measure the perception of elements in each of the four dimensions of evaluation

ii) the perceived measures of the specified elements were correlated with actual performance. In this study all the other measures of the specified elements were correlated with academic performance.

iii) the relationship between the perceived measure of the elements and the actual performance were tested for significance. A + sign was assigned for a positive significant relationship; a - sign for a negative significant relationship; and an o for no significant relationship.

iv) the +S, -S and OS were indicated in the corresponding Tetrahedral model so as to form an evaluation schema.

v) to decide on the nature of the evaluation schema the frequencies of the -S, +S and OS were tested for statistical significance using the chi-square (X^2).

There are four types of evaluation schema depending on the results of statistical testing of the three signs. The types are:-

i) Positive schema: when a significant positive relationship exists between actual performance and a perceived importance. A perfect positive Schema would lead to maximum achievement of need satisfaction in the tetrahedral pyramidal model

ii) Negative schema : when a significant negative relationship exists between actual performance and perceived importance.

iii) Ambivalent Schema : is when the strength of the evaluation schema neither tends in the positive nor negative direction. It is when neither a positive nor negative significant relationship exists between actual performance and perceived importance. This shows uncertainty about the purpose of evaluation. It represents a cloudy condition concerning evaluation.

iv) Trivalent Schema : exists when a statistical test comprising of positive, negative and ambivalent evaluation schema shows no significant difference among the three.

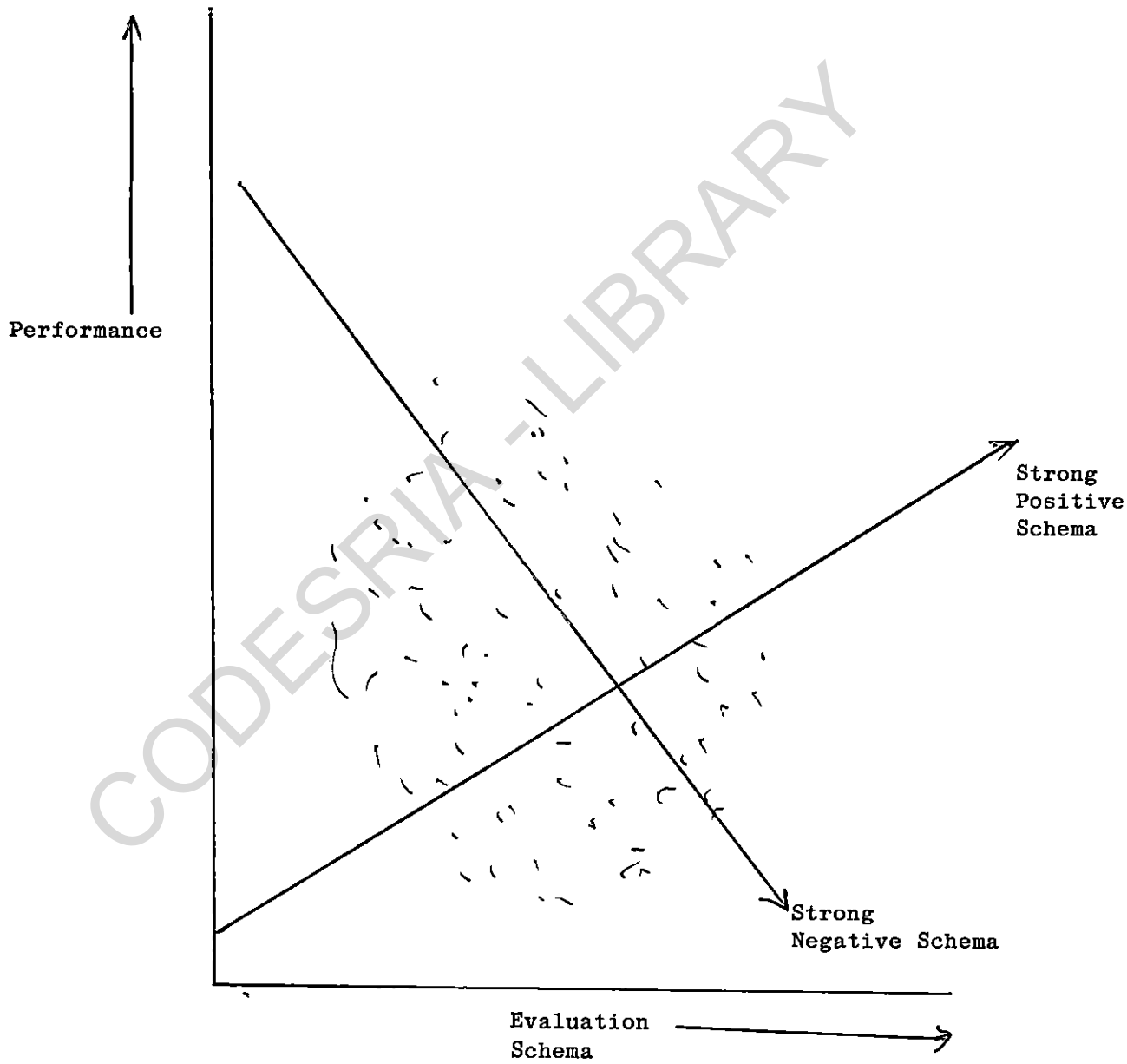
The four types of evaluation schema have different effects on performance.

The positive schema promotes highest performance and negative schema detracts enhancement of performance, in this case academic performance. The trivalent schema is a better promoter of academic performance than the ambivalent schema because it has some components which are perceived positively; and responsible for the better performance.

The positive, negative and ambivalent evaluation schema can be represented graphically as shown in figure 2.3.

FIGURE 2.3

Graph showing how academic performance varies with respect to each evaluation schema.



N.B.

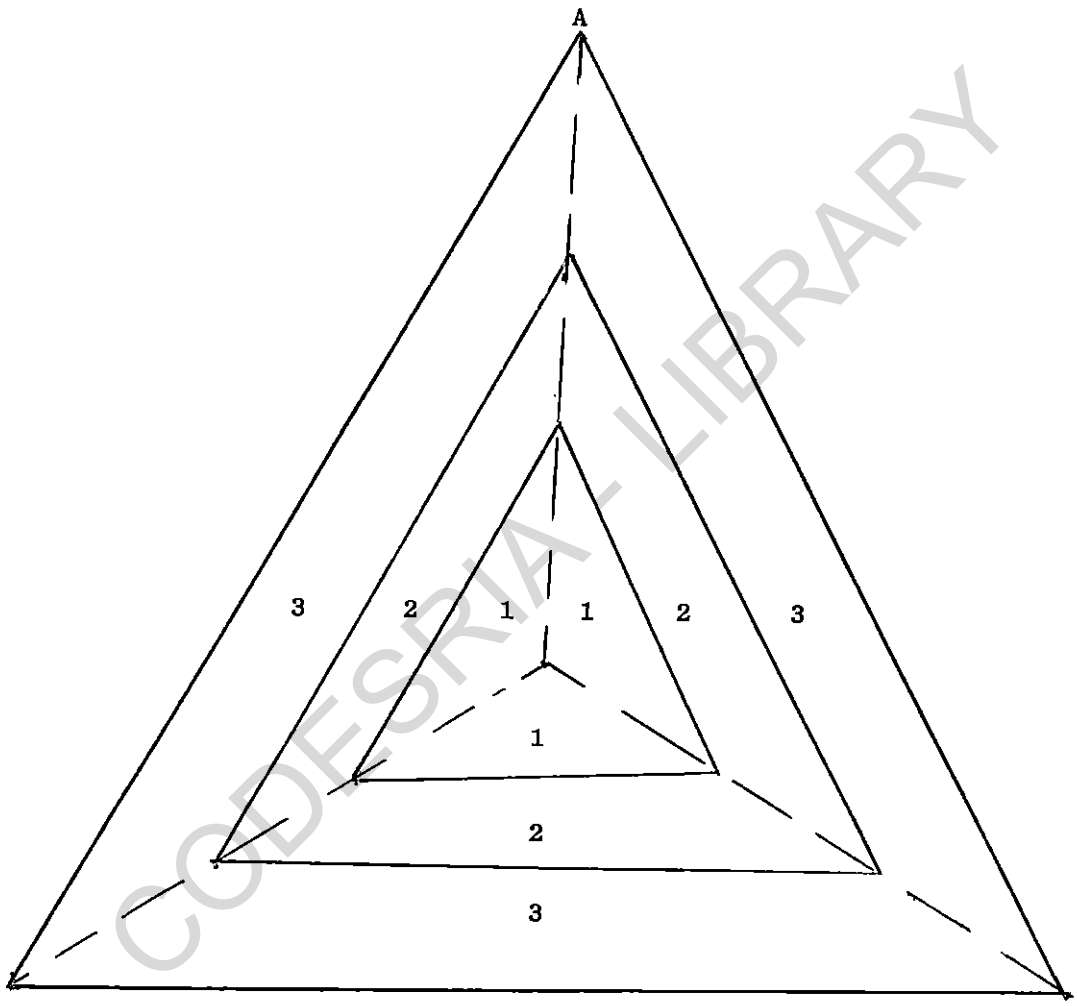
The dots represent an ambivalent Schema.

The trivalent schema cannot be represented graphically since it involves a situation where the three are occurring equally and simultaneously. During the test for statistical significant, the assumption is that the nature evaluation schema is trivalent. A trivalent schema implies a chaotic state of affairs in the education system.

The four types of evaluation schema have different implications for the achievement of the need satisfaction level in the tetrahedral pyramidal model. A perfect positive schema results in the highest need satisfaction level; trivalent schema leads to average level and an ambivalent one leads to below average level. A negative schema cannot be represented in the model since it does not lead to any need satisfaction level, but instead leads to a high level of discontent in education. The different schema are represented in the pyramid in figure 2.4.

FIGURE 2.4

Need Achievement level in the pyramid due to Different Evaluation Schema.



Key :

A = maximum Need Achievement level (point).

1 = Need Achievement due to ambivalent Schema.

2 = Need Achievement due to trivalent Schema.

3 = Need Achievement due to positive Schema.

2.2.0 VARIABLES

In this study, academic performance was considered as the dependent variable. It was conceptualised as a function of self-perception, perception of evaluation methods, and school environment among other variables that may be influencing it. Academic performance, self-perception in relation to school work (locus of control), perception of evaluation methods and school environment were therefore the main variables in the study. These were symbolised as AP,LC,Pe,Se, respectively.

Academic performance was measured by performance in : K.C.S.E, Mock test (MT), End of term tests (ET) and class Assignments (CA). The perception of evaluation methods was considered with respect to the point of view of the students' abilities.

The relationship was expressed as follows :-

AP = f(Lc, Pe, Se, E)

Where

AP = Academic performance

Lc = Locus of control in relation to school work

Pe = perception of evaluation methods

Se = perception of school environment

E = Some error term

2.2.1 ACADEMIC PERFORMANCE

Although various tests can be used to determine academic performance, in this study, academic performance was measured using the mock tests, mid-year tests, and the

Kenya School Certificate of Education (K.S.C.E) examinations results. The end of term tests, end of year tests, class assignments and projects, and class tests (periodic tests) were used, but they were not quantified for the iv students, only the way they were perceived was considered.

If it is possible that students, teachers, administrators and parents all work toward achieving educational goals; it is therefore natural that they would like to ascertain the degree to which those goals are realised. It was for this reason that academic performance was investigated since it is normally used as a criterion for measuring the achievement of educational goals.

An index of academic performance for the Form Four students was obtained using the 1993 mock and K.C.S.E examination results. The two grades for each student were obtained from the school after the results were ready. The two grades were not averaged since they were from different examining bodies. For the Form Two students, to get an index of academic performance, the mean grades for the mid-terms tests in Form 1 and Form Two were averaged

2.2.2 SELF-PERCEPTION (LOCUS OF CONTROL)

Self-perception was quantified using the locus of control scale. Self-perception is the mode of evaluation with respect to a specified activity or phenomenon. The resultant self-evaluation affects the behaviour of the individual towards that phenomenon. Students spend most of

their time in schools where they are prepared for participation in the activities of the society after their education. It is likely that their self-perception with respect to school activities will affect their contribution to National Development. It is likely that educational institutions are the arenas in which the young persons are compelled to compete. In doing so they are forced to reveal personal adequacies and inadequacies in public contests, frequently on unequal terms with others in events of not their own choce, against externally imposed standards. In that case, evaluation in education becomes self-evaluation.

Self-Perception is therefore an important aspect in bringing about change in a society. The behaviour of an individual towards a given stimulus or set of conditions is determined by the way the stimulus in the environment is perceived. Self-perception is a psychological process in an individual and can only be inferred from his behaviour. The nature of self-perception can affect the individual's learning process and how he expects other people to learn. It can also affect the nature of problem solving procedure taken by an individual. If the locus of control in relation to the needs of society in understood; it can help in improving the learning and problem solving process. Since teachers are likely to expect learners to organise information according to the way the teachers perceive the given information, it is necessary to understand the locus of control of the teachers and students.

Examinations are used for selection to various institutions of higher learning. Their effects on a student are determined by his nature of locus control. This therefore raises the question of : Does the student have the attitude that he or she is helpless before the examinations or does he feel that he has the responsibility of determining the nature of the examinations results? Locus of control can be an obstacle in problem solving process. It can be an obstacle if the individual organises a stimulus in a particular environment with the attitude that the environment can manipulate his efforts and determine the solution to the problem. In this case he will be helpless in new situations and incapable of making any prediction of consequences of any given conditions. The nature of one's locus of control can determine the goals a student sets for his undertaking in life; and his expectations from others. This is very important for the classroom teacher, who has to set goals or aims for his lessons before teaching.

By the nature of his profession, a teacher makes decisions which affect the lives of very many individuals. The role of the teacher in the society makes it necessary to have a theory that can help to give an indication of the type of decisions he is likely to make. Internal-external locus of control is a theory that has been put forward as an attempt to explain how an individual interacts with a stimulus in the environment in a form of problem.

The theory can help predict the type of decision an individual makes under given conditions.

There is a likelihood of students in Kenya, being faced with problems of rapid growth of population and the consequent over crowding, discomfort and environmental pollution to be under stress. Under such conditions of stress students may feel overburdened, irritable and helpless. The teacher should be able to help the learners make a fruitful step under such conditions. There is also a sharp increase in the incidents of violence and insecurity due to robberies, assaults, murders and rapes. If the teachers have to be helpful to the society, they should incalculate values in the students which can enable them fight these evils. The ability of the teacher in using his profession to minimise such evils is likely to depend on his locus of control.

It was the conviction of the investigator that uncertainties and variations in personal experiences sometimes produce deviates, but also produce ingenious and creative individuals. Unique and innovative minds grow among those who can come to perceive differences between others and themselves and who continue to hold the assumption that they are free makers of their own fates. This research therefore investigated whether the students in secondary schools perceive their performance in examinations as measure of positive changes in the education system.

Change is difficult to occur in a society because significant change occur when people stop believing in what may once have been true, but has now become false; When they withdraw support from institutions which may have once served them but no longer do; When they refuse to submit to what may have been fair terms but which are no longer. Such changes when they occur are a product of meaningful education. However, such changes are more likely to occur if people are ready to be a accountable for the outcomes of their behaviour.

It should be noted that physical Chemistry could not evolve a workable theory of combustion while its vocabulary coexisted with old term like phlogiston. The problem is, will 8-4-4 system bring the desired change when there is still the old stress on importance of passing National Examinations? It can be remembered that in 1985 the best province, best district, best school and best candidates in the National Examinations was given great honour: but there was no honour for creativity after the first K.C.P.E results. The pupil who built the best hut, did good work on the school farm and probably excelled in practical carpentry work was not nationally honoured.

There are two categories of locus of control, namely internal and external. Therefore, an individual's personality can be perceived as internal or external locus of control. An individual with an internal locus of control is more likely to perceive himself as being responsible for his action. This is in agreement with the

organismic view of human development where an individual has the attitude of being able to a great degree to determine his fate and causing change in the society. The individual with external locus of control believe that only other superior people and the natural environment can determine his fate, are responsible for his action and can cause change in the society. The externals characteristics can equally be explained by the mechanistic view of human development, in which the individual is passive with respect to changes in the environment.

Differences in locus of control among students may affect their learning from given instructions. It is therefore possible that if individuals differ in their perception of on going events, the difference in perceptions may be partly responsible for differences in learning from instructions. Therefore, if learners differ in their perceptions of an instructional treatment, then they may be regarded as experiencing different instructional process that includes the learners' cognitions and perceptions.

The perception of instructions by teachers affect attitudes towards their working atmosphere. The self-perception can be considered as an enduring attitude. It is possible that when one acquaint himself with the massive outpourings regarding the lives of impoverished peoples, displaced persons and not members of well to-do groups, the common characterization is that of subject helplessness and a sense of despair. It is also likely that when an

individual is deprived of his sense of self-determination he is less able to learn about himself from his experiences, he is less able to develop a definite measure of his own worth. Therefore, an investigation of self-perception in relation to academic performance and perception of evaluation methods was necessary since it will help in improving the learning situation in schools.

2.2.3 PERCEPTION OF EVALUATION METHODS

Although intelligence has been shown to be the most important determinant academic performance as it will be discussed in chapter three, there are other variables that do contribute to Academic Performance. One such variable that was considered in his investigation was the perception of evaluation methods by students. The perception of a given stimulus or phenomenon affects the formation of attitudes towards the stimulus. There are six possible phases in the process of responding to evaluative feedback, these are:-

i) a reception and retention of evaluative information
ii) assessment of the information source
iii) attribution of responsibility for the outcome obtained
iv) changes in self-evaluation
v) satisfaction with feedback
vi) changes in task performance

There is therefore the possibility that the behaviour of a person after evaluation is significantly mediated by the effects of that evaluation on his or her self-esteem. The attitude exert a direct or dynamic influence upon the individual's response to all objects and situations with which the individual is related. This shows that the conditions in the environment of an individual are very significant since their perception determine the attitudes towards them. It is therefore important for researchers to consider the perception of evaluation methods by students and teachers since this is a frequent phenomenon in institutions of learning. This will assist to distinguish between good and bad evaluation methods in a teaching and learning situation. For this reason, the perception of evaluation methods by students and teachers in secondary schools formed a variable in this investigation.

The areas of concern in the investigation of the perception of evaluation methods are public examinations, Mock examinations, end of term tests (termly tests), purpose of evaluation, class tests (periodic tests) assignment and projects, and source of evaluation. The investigation also considered how students and teachers perceive these evaluation methods in respect to parents, teachers, students themselves and the Government Education Officers. The perception of evaluation methods by teachers was considered because they prepare students for evaluation and they also evaluate the students. In this investigation the general assessment of a students' personality was

considered as one of the methods of evaluation, by considering the teachers comments.

2.2.4 SCHOOL ENVIRONMENT

In this study environment implied the physical and social environment. It therefore referred to things and activities in the life space which directly affect the individual in school.

With proper knowledge of this situation those involved in planning and implementing school curriculum can be in a better position to provide the kind of climate within schools that may develop favourable perception of evaluation methods and lead to a good academic performance. Furthermore, the findings can be used to understand the problems facing students in their academic performance. Furthermore an understanding of the school environment can help in solving problems facing students in their work as a result of the social environment in schools.

The social environment included the context within which activities occur in the schools. For maximum output, there is need to know how favourable or unfavourable the school environment is. In this investigation only some of them were considered. These were gender, type of school, (this implies boarding/day, mixed/single, urban/rural, and private/public schools), the relationship between the school and the surrounding community, teacher-teacher, teacher-student and student-student relationship.

Physical environment forms a sub-environment which provides a network of forces and factors with which the individual interact. In development of human characteristics, environmental forces provide a vector for the development. The physical facilities in schools form a sub-set or sub-environment of the total academic environment. In this study, the physical environment included availability of physical facilities within the schools. The facilities that were considered were availability of books, desks, workshops and laboratories. These equipment when absent or present can greatly influence the perception of school activities including their learning processes. Therefore, if the decision makers are to have a clear percept of the satisfaction with school activities as well as intellectual and academic productivity, these factors should be given serious consideration. Thus they were included in this study.

2.3 SUMMARY

Schools as educational institutions have the responsibility of providing academic satisfaction for their clients. Where there are problems, it is very likely that the society will be dissatisfied. It is therefore necessary to establish factors that affect the method used by schools and the society in the accountability of educational system in schools. To examine the situation carefully, research work is needed to get at how students

perceive the learning procedure and evaluation. Therefore, the conceptual framework of this study can be summarised using the expression:

Ap = f(Lc, Pe, Tf, Ge, Se, E) where :-

Ap = Academic performance

Lc = Locus of Control

Pe = Perception of evaluation methods

Se = School environment

Tf = Type of school

Ge = Gender: Boys/Girls

E = Some error term

The given expression was then used to derive the students' group evaluation schema based on the tetrahedral pyramidal model,which consists of the objectival, source, instrumental and functional dimensions.

2.4 DEFINITION OF TERMS

SELF: This is one's own individual personality and identity, as distinct from those of others. It included one's individual interests, advantages, things concerned with and affecting oneself. It is the essential quality, character and innermost virtue of an individual.

ATTITUDE: This is a relatively enduring system of effective evaluation reactions toward a phenomenon or object. It is a generalised feeling favourable

or unfavourable, towards persons or things in one's life space.

SELF PRESENTATION: Is the use of individual behaviour to communicate information about oneself to others after evaluation. The main motives of self-presentation are to please the others and construct one's public self congruent to one's ideal.

BEHAVIOUR: Is a function of an individual's philosophy as modified by needs as affected by a frame of reference (which is the summation of beliefs, attitudes, values and cultural background) past experiences, the present conditions and future expectations. It refers to motor or cognitive or psychological activities engaged in by an individual due to changes in the environment.

SELF-AWARENESS: This is the result of that which occurs when an individual's attention is inward-directed.

LOCUS OF CONTROL: Is the nature of how an individual perceives the source of changes in the environment with respect to himself or herself. Individuals can be classified as having an internal or external locus of control. Individuals described as having internal locus of control

perceive changes in the environment to be as a result of the individuals' own actions. People described as having External Locus of Control perceive events as caused by luck,chance, fate, powerful others or any other external factor.

SELF PERCEPTION: Is the dynamic process by which an individual sees himself by considering certain factors. In this process, man objectifies himself, stands apart from himself and considers what he would like to do and become. The process leads to self-concept formation.

EVALUATION: Is a process of delineating, obtaining and providing useful information for judging or making decisions. It can be considered as the determination of congruence between performance and objectives. It is a process that allows one to make a judgement about the desirability or value of something.

FORMATIVE EVALUATION: Is the evaluation conducted during the operation of a program to provide developers with evaluative information useful in improving the program, for example, through content inspection by experts and pilot

test used to make necessary revisions.

SUMMATIVE EVALUATION: Is the evaluation conducted during the operation of program particularly at the end of a certain phase to provide potential consumers of the product of a program with judgement about the program's worth or merit.

INSTRUMENTAL DIMENSION OF EVALUATION: This refers to the tools or instruments used to carry out evaluation. In this study it refers to public National Examinations, Mock Examinations, termly tests, Teachers' comments, periodic tests,class projects and class Assignments. They are also known as methods of evaluation.

SOURCE DIMENSION OF EVALUATION: This refers to who has and who should have the authority to carry out evaluation. In this study it refers to teachers, students, parents and government Education Officers.

FUNCTIONAL DIMENSION OF EVALUATION: This refers to the purposes or functions or uses of evaluation in education.

ELEMENTS OF EVALUATION: This refers to the various entities that constitute a

particular dimension of evaluation. Examples of the elements of the instrumental dimension are public examinations, mock examinations and termly tests.

EVALUATION SCHEMA: This is the nature of the combined effect of the cognitive and effective composition of the evaluation map derived from the tetrahedral model of evaluation. There are four types, namely: Positive if the individual has a positive percept of evaluation, ambivalent if the individual is undecided about the importance of evaluation, negative if the individual has negative percept of evaluation and trivalent when there is no statistical significance among the positive, ambivalent and negative schema types.

SCHEMA STRENGTH: This is the total percentage of fraction or frequency of the + or _ or O signs constituting an evaluation schema.

SELF-CONCEPT: Is a dynamic and motivating set of attitudes held about oneself.

TEST: Is a device for obtaining a measure of individuals behaviour. For example a set of

questions can be answered and from the answers a measure of an individual's characteristics can be obtained.

EXAMINATION: Is a collection or set of many tests.

ACCOUNTABILITY: Is the acceptance of responsibility for consequences in education by those entrusted with the public service of the education. It involves setting correct goals in terms of students' outcomes (often with community help) evaluation of whether the goals have been achieved and at what price, and accepting responsibility for inadequacies in performance.

SCHOOL ENVIRONMENT: Is used to refer to the physical and social conditions in which a particular school operates. The physical conditions include availability of class text books, exercise books, books in the library and necessary laboratory facilities. The social conditions include the student-student relationship, teacher-teacher relationship and school-community relationship in terms of customs and beliefs.

PUBLIC EXAMINATIONS: Are examinations administered at National Level to all schools in

the republic at a particular level of education.

EVALUATION SYNDROME: Is a complex state in which the individual does not know the appropriate instrument for evaluation. Most of the instruments are perceived to be of equal importance yet they do not mean much. At this stage, the instruments that were positive reduce in their importance and those that were perceived negatively increase in their importance.

CHAPTER THREE

LITERATURE REVIEW

3.0. INTRODUCTION

After the statement of the problem in chapter one, and development of the conceptual framework based on the tetrahedral pyramidal model of evaluation, it was necessary to review the related literature so as form a basis for the present study. In this chapter, the literature review is presented under the following sub-headings:

i) Conception of evaluation

ii) Functions of evaluation

iii) Self-evaluation of Ability

iv) Brief review of the changes in evaluation

v) Evaluation methods used in Kenya schools

vi) Perception of evaluation methods.

3.1 CONCEPTION OF EVALUATION

Evaluation is a process that is judgemental in nature, which involves making opinions about decisions in terms of set goals using given relevant data or information. It deals with appraisal of value or the estimation of the worth of a thing, process or programme, in order to arrive at meaningful decisions about that thing, process or programme. It is a form of ascertaining the worth of an endeavour in terms of set objectives that is carried out frequently in education. In schools, which are the main centres of education, evaluation is commonly based on measurements obtained from tests, projects, assignments,

laboratory work, reports and examinations. The evaluation can be carried out by self or others.

When the evaluation is carried out by self, the crucial expectancy in many situations is the person's perception of the competence, particularly his estimate of the likelihood of success at the tasks to be engaged in. According to Shrauger (1975), the are six phases of the process of responding to the evaluation feedback (whether from self or others) these are:-

i) Reception and retention of evaluation information.

ii) Assessment of the information source.

iii) Attribution of responsibility for the outcome obtained.

iv) Changes in self-evaluation

v) Satisfaction with feedback

vi) Changes in task performance.

The six phases proposed by Shrauger concerning responses to evaluation feedback may be true but these are not the only phases because it is possible that evaluation feedback can lead to changes in the nature of tasks that an individual can engage in. A major shortcoming of Shrauger's proposal is the lack of emperical evidence on perception of evaluation based on a model of evaluation.

Theoretical perspectives as can be deduced from Shrauger's proposal, are used to generate predictions about the influences of perceptions of competence on actual

behaviours. For example according to the cognitive balance or consistency theory proposed by Festinger, individuals strive to maintain consistency in their beliefs and attitudes. Inconsistency in beliefs and attitudes produces negative effects on the behaviour of the individual. Evaluation feedback which is incongruent with important elements of one's self-concept are distorted more often, ascribed less credibility, attributed less important elements of the self and more productive of negative effect. Although Festinger's cognitive theory is correct,but it may not fully explain the effect of evaluation feedback on the individual's behaviour. It is possible that the impact of evaluative information may depend substantially on how much performance is attributed to oneself as opposed to factors outside oneself.

Baumeister (1982) highlighted the view that self-presentation is the use of behaviour to communicate some information about oneself to others. The two main self-presentational motives are to please the audience and to construct (create, maintain and modify) one's public self congruent to one's ideal using evaluative information. Baumeister's analysis of the motives of self-presentation is possible through intrinsic reinforcement of the individual. The behaviour of a person after receiving an evaluation depends on its effects on the individual's self-esteem.

Self-presentation affects task performance, in that people will try to perform poorly when they expect poor

performance because doing well could create cognitive dissonance. Baumeister et al (1979) had demonstrated this experimentally. Subjects were told that they were expected to perform poorly because of a personality trait they had. They (Baumeister et al) speculated that the phenomenon of learned helplessness is influenced by self presentation.

Stones (1983) using Rotter's I-E scale and 163 undergraduates at Rhodes University, reported that the prediction that the externally-oriented subjects would show a significantly greater tendency than the internal scorers to blame "bad luck" for their failure was supported. In their evaluation, the individuals with an internal locus of control perceive events as being a consequence of one's own actions, while those with external locus of control perceive events as being unrelated to one's own behaviour in certain conditions and also beyond personal control. Stones' research did not address the issue of the relationship between locus of control and level of education and only used university students. The present study investigated whether locus of control is influenced by the level of education.

Another factor that is closely related to locus of control that can affect the perception of evaluation is self-awareness. It is the individuals' ability to define himself in relation to stimuli in environment. According to Wicklund (1972), self-awareness begins to operate only when the individuals' attention is inward-directed. It brings rules to bear upon behaviour, and works only through

conscious mediation. A self aware person engages in a process of evaluation, which is defined by correspondence or lack of correspondence of the rule and behaviour constitutes an evaluative state. If the discrepancy is negative, the person undergoes a negative evaluation process which is uncomfortable and should be avoided. For example, if a student is required to pass examinations in science subjects in order to become a doctor, the rule is passing examinations as requirement for becoming a doctor and the expected behaviour is good performance in science subjects. In this case, a student who is interested in becoming a doctor but performs poorly in science subjects is likely to experience a negative discrepancy.

Falling short of one's standards does not automatically produce discomfort, one must first become self-aware before a shortcoming can set off the evaluative process. Negative self-evaluation consist of two elements: a discrepancy between behaviour and some standard about correct behaviour, plus focused attention toward that discrepancy. If the negative effect-producing self-awareness conditions cannot be averted, the person will act so as to minimise or reduce the discrepancy. There is no self apart from the individual's consideration of other people. The reflective self is necessarily self-aware with respect to the points of view of others.

Wegner et al (1980) in an attempt to describe a self aware person, introduced the principle of recency. The principle asserted that the Central determinant of the

direction taken by the self -aware person whether in acting on emotions, acting consistent with decision or acting with a moral rule, is the extent to which the potential source of behavioral influence is already having or has recently had an impact on the person's behaviour. However, Wegner did not support his argument empirically, which the present research tried to do. In this research the potential source of behavioral influence considered are the students themselves, parents, teachers and government Education Officers. Enzle (1980) noted that socializing agents (parents, teachers and others) show children how to recognise and evaluate the majority of their attitudes and feelings.

Individuals come to "know" their own attitudes, emotions and other internal states partially by inferring them from their own behaviour and/or the circumstances in which their behaviour occurs. Thus people are more likely to evaluate their own experiences in the same way as do outside observers. Since the internal cues are weak, ambiguous or cannot be interpreted, the individual is functionally in the same position as an outsider and relies upon external cues to infer about the internal states. The self-perceived competence enhances motivation to engage in activities, while self-perceived incompetence decreases motivation.

People are more likely to engage and persist in activities for which they have high expectations of personal efficiency than in activities at which they

believe they will fail. The self-regulation which is an individuals ability to control his/her own behaviour, enhances high expectations, this is possible through self-reinforcement. This is an individual's initiative in setting personal goals, achieving them and rewarding oneself. Self-reinforcement produces longer-lasting changes than does extrinsic reinforcement after rewards are withdrawn (Enzle, 1980). Extrinsic reinforcement makes an individual to depend on external factors as a source of reinforcement. This means the individual is passive and less willing to initiate activities aimed at receiving a reward. When people learn to self-administer rewards, that is be able to initiate activities that result in reinforcement, they directly learn that they are controlling their own behaviour via rewards. Self-reinforcement may therefore lead to enhanced perception of self-determination which is an individuals motivation to be responsible for his or her own level of achievement. This in turn, maintain previously reinforced behaviour event when extrinsic rewards are no longer available.

The process of evaluation involves information processing in which there is the scanning of environment, selecting certain aspects or features of it for focus, categorizing, describing and organizing the information to make some kind of decision, judgement or action, and finally sorting this information so that it can be retrieved for use later on.

Markus (1980) while discussing Piagets principle of cognitive structures, asserted that, if one has to understand or predict another individual's behaviour, one has to understand how this individual cognitively represents or structures the world. One has to understand the individual's frame of reference, that is, the system used to categorize and understand data from the environment. According to this approach, past experiences are categorized or organized into structures in the mind, and these are called knowledge structures. They are used as basis for organizing or interpreting new information. They influence both input and the output of information.

The knowledge structus are commonly known as schema. According to Neisser (1976) in his explanation of Piagets principle of cognitive structures, without the schema no perception or thinking would be possible. The schema are internal to the perceivers, modifiable by experience and somehow specific to what is being perceived. The schema accepts information as it comes available and is changed by that information. The schema directs movement and explanatory activities that make more information available. The self can therefore be considered as a cognitive structure or set of structures that organize, modify and integrate functions of the person.

People are different because their cognitive structures or schema systems are different. Thinking about ones' behaviour involves schema about self or knowledge structures that are developed to understand, integrate, or

explain after evaluation, the individual's own behaviour in a particular area. They enable individuals to understand their own experiences and integrate a wide range of stimulus information about the self into meaningful patterns. They are derived from repeated categorization and evaluation of individuals behaviours by self and others. Markus (1980) argued that if a person has developed a self- structure or schema in a particular area, the person should:-

i) Process information about the self in a given domain, with relative ease or certainty.

ii) Have relative better memory for behaviour in this area.

iii) Predict future behaviour in this area.

iv) Resist information that is counter to the prevailing schema.

v) Evaluate new information with respect to its relevance for this domain.

Although Markus and Neisser discussed Piaget principle of cognitive structures, they did not come up with a method of quantifying it. The present study developed a method of qualifying evaluation schema based on the tetrahedral pyramidal model that has already been discussed in chapter two.

In this research, Form IV students were assumed to have developed more stable cognitive structures in relation to perception of school environment, locus control and

perception of evaluation methods, than the Form II students. It was also assumed that the teacher's level of training, teaching experience and gender affect the nature of the cognitive structures. It should be noted that self-structures are likely to influence memory of events about the self, so that, good, correct, responsible, consistent and successful activities are more likely to be recalled than bad, incorrect, irresponsible, inconsistent or unsuccessful ones.

3.2 FUNCTIONS OF EVALUATION IN EDUCATION

Evaluation can be considered as the processes of deciding on the merit or worth of a thing. Evaluation can be carried using information obtained using tests, interviews, observations and examinations. According to Farrant (1980), tests and examinations in learning are used to measure: weakness in learning, effectiveness of teaching, standard of education, specific abilities like reading and suitability of individual children for a particular course or career. For example,diagnostic tests are needed to determine special difficulties of learners. Farrant's view of tests and examinations is not exhaustive, because these instruments can also be used to measure affective traits like motivation and attitudes.

Mehrens and Lehman (1984) suggested that the purpose of evaluation is to help in making institutional and individual decisions. They also said that it is used in making instructional decisions about the learning outcomes,

teaching, learning diagnosis, differential assignments within class, grading and motivation. Evaluation also helps in guidance particularly in occupational, educational and personal matters. They further argued that evaluation serves an administrative function when it is used in selection, classification, placement, public relations, curriculum planning, evaluating teachers' effectiveness in schools, and it provides a basis for research in education.

According to the Kamunge Report (1988) on education and manpower training, it was pointed out that the co-ordination of curriculum, examinations and certification are necessary for harmonization of education training programmes in the country. The report argued that in properly co-ordinated and harmonized curriculum, examinations and certification create linkages which allow for both vertical and horizontal mobility of students and employees seeking to advance their knowledge and skills. Examinations and certification are central to education and training processes as a means of evaluating the level of achievement for purposes of further education training or employment. According to the Kamunge Report, evaluation serves a very important role in education, but the report also noted that pressure to pass examinations and acquire good academic certificate has led to much competitiveness.

The Farrant's views, Mehrens and Lehmann explanation and the Kamuge report on the functions of evaluation considers specific functions. However, it is possible to

view the functions of evaluation on a more broad basis as proposed by Ernest (1986). He asserted that evaluation serves the purpose of the watchdog of the public welfare and pointed out that there is an emerging consensus upon the issues of what kinds of information should be collected and what methods of inquiry should be used, but no consensus as to the social political functions of evaluation or the role evaluation should play in the society. He asserted that evaluation serves the following functions:-

i) Proactive evaluation intended to be used during decision making and retroactive evaluation to serve the purpose of accountability.

ii) Formative evaluation used for the improvement and development of an on going activity

iii) Summative evaluation used for accountability, certification or selection.

iv) Psychological or socio-political functions, when it is used to increase awareness of special activities, motivate desired behaviour of the evaluees or promote public relations.

v) Exercise Authority over those who are being evaluated by those carrying out the evaluation.

The demand for accountability in education has made the issue of quality of classroom teaching and teachers very important. It has led to the need to evaluate teachers and develop new systems for teacher evaluation. The key to

educational improvement lies in upgrading the quality of teachers rather than in changing school structure of curriculum. This calls for the evaluation of teacher's competency (knowledge, skills and profession values, that are relevant to the successful practice of teaching), performance(what the teacher does rather than what can be done) and effectiveness (effects of teachers' performance on learners). In this evaluation process the learners and teachers are justified to play a role, that is why, in this study an investigation was carried out on how students and teachers perceive the importance of teachers' evaluation in predicting the final academic achievement in schools.

The local Examination Syndicate, University of Cambridge (1976), raised two debatable questions concerning the functions of examinations as means of evaluations. The questions were:-

i) Should examinations in secondary schools continue to fulfil the functions they have exercised for many years?

ii) Can a single examination serve more than one purpose?

In this debate, Mathews (1985, p.1) said that:-

> "Seen in their early days as means of liberation form the inequalities of advancement through privilege, patronage and wealth, they now appear to some as having a distorting effect on education. In some countries there are signs of decline in their use, indeed there are instances of outright rejection in their use, in some their influence are increasing. Evaluation is no game. It is deadly earnest... lives can be warped and careers ruined."

Mathews noted that the social aims of starting examinations in the evaluation system were to restrict nepotism and draw into the public service young men from the villages, but access to political power has never rested solely in academic success. It is worthy to note that the function of examinations was not simply to issue certificates and prices and to select young people for advancement in trade and industry, a primary function was to "encourage systematic study and punctuality of attendance among the students."

External examinations are deliberately applied to individual students with the express intention of influencing the curriculum provision in schools. They are intended to improve standards of teaching, by bringing pressure to bear on teachers so as to improve the level of attendance and thus provide educational advancement for those who otherwise would have left with little or no schooling. Mathews (1985) recommended that there is need to find better means other than tests and financial sanctions and rewards by which teachers and schools can be held accountable and pupils encouraged to learn.

In his discussion of the purpose of evaluation, Mathews (Ibid) argued that there was a time when examinations had little or no part to play in education, and it was not inconceivable that such a state of affairs will come again. The purpose seems to have changed little over the years and can be divided conveniently in those

associated with students and those associated with schools and other educational institutions as follows:

i) Sorting out students (selections): the examinations are instituted solely to allow those who come to the top to have access to the best prices in employment or further education.

ii) Capability diagnosis : used to motivate teachers and students, guidance of students, and formative influence on curriculum. According to Mathews, non of these necessarily requires a National currency. In such a system there is bound to be waste; waste of those who would have succeeded in later life but have no ability to pass examinations, and waste of those who have that ability but do not succeed in careers for which examinations have qualified them. The degree of misfit is difficult to estimate.

iii) Certificate inflation : From this point of view, then, examinations lead to certificates which serve as a currency with which access to careers can be purchased. There is a decline in the value of certificates. One consequence of certificate inflation is increased stress on students and even, to some extent, on teachers.

Mathews (Ibid) raised the issue that those who oppose the use or at least the excessive use, of examination certificates as a means of allocating young people a place in the society paint a sombre picture not only of the pressure on students and curriculum, but the unfairness to certain groups of students who, because of an inappropriate social or family background find themselves severely handicapped at the very start of the long hurdle race. This may be so but for the present it seems that society is prepared to continue to accept this dominant competitive function as the main reason for continuing with public examinations.

Johnson and Jones (1971) supported Mathews views when they reported that most entrance criteria used in Eastern and S. Africa were very inefficient due to high failure and dropout rates, with the accompanying frustrations, disappointment and hostilities generated.

The views expressed by Mathews concerning the functions of evaluation are valid but do not consider the factors that may affect it and also give evaluation a negative image. This calls for a rethinking about the current functions of evaluation in education. To achieve this, it is necessary to get empirical evidence, which the present research sought to provide.

Eisner (1985) argued that the current conventional approaches to evaluation focus almost exclusively on the products of the enterprise while they neglect the conditions, context, and interactions that led to the

consequences. They provide little that is of use to the teacher in order to know what to alter or what to maintain in the course of teaching or in designing of curriculum. This is likely to lead to the misinterpretation of the goal of the curriculum. Eisner's argument is correct because the same experience under different conditions is likely to lead to different behaviours or effects.

Gronulund (1985), in his contribution on the functions of evaluation, proposed that the marks and progress reports used in school for evaluation serve the following functions:

i) Clarify the school progress objectives;

ii) Indicate the learners' strength and weakness;

iii) Promote greater understanding of the learner's personal social development;

iv) Contribute to the pupils motivation;

v) Enable parents to co-operate with school personnel in promoting their children's development;

vi) Enable parents to give children the needed emotional support and encouragement;

vii) Enable parents have bases for helping their children make sound educational plans;

viii) Used for assigning grades and evaluating the effectiveness of instruction;

The rapidly increasing role of testing in education has also been paralleled by mounting criticisms of testing and its possible hazards to individuals and groups. This

has come out of the negative image evaluation has acquired. For example, Gronulund (Ibid) raised the following questions concerning the use of testing in schools:-

i) Does testing emphasize improvement in learning and instructions?

ii) Is there stress of criterion-referenced measurement?

iii) Are aptitude tests used in school to diagonise school learned abilities?

iv) Is there a public concern about testing?

He held the view that increased use of tests in the schools and the varied functions they are expected to serve have contributed to a changing emphasis in educational measurement. They have also created public concern about the role of tests in schools. Probably the greatest public concern has been with the social consequences of testing that may threaten the rights and opportunities of individuals and groups. Among students, testing causes anxiety, categorises and labels students, damages self-concepts and creates self-fulfilling prophecies.

Njoroge (1982) suggested that the purpose of evaluation using examinations was to determine the level of academic achievement and predict the future achievements or prospects for further training in a specific case. However, he pointed out that examinations are artificial and if they are unfairly or incorrectly used, can lead to irreparable educational harm to the learner. Although Njoroge's suggestions may be true, he did not suggest

steps that should be taken to eliminate or reduce the harm that can be caused by examinations. The present study has made suggestion as how the harm can be reduced.

Worthen and Sanders (1987) said that the role of evaluation in improving education is by facilitating careful, systematic inquiry into the effectiveness of either current school practices or new programmes, so as to avoid random adaptation of faddish innovations. They suggested the following as the roles and goals of evaluation:

i) To provide a basis for decision making and policy formation;

ii) To assess students achievement;

iii) To evaluate the curriculum;

iv) To accredit schools;

v) To monitor expenditure of public funds;

vi) To improve educational materials and programmes.

They asserted that evaluation plays many roles but has a single goal : to determine the worth or merit of whatever is being evaluated. The goal of evaluation is to provide answers to significant evaluative questions that can be posed; and evaluation roles refer to the ways in which those answers are used. Evaluation can serve either a formative or summative purpose.

Worthen and Sanders (1987) concluded that despite the criticisms on evaluation, the support for continued use and

improvement of evaluation generally rests on one of the following arguments:

i) There is need to plan and carry out school improvements in a systematic way that includes : Identifying needs, selecting the best strategies, monitoring changes as they occur, measuring the impact of the changes; so as to avoid faddish overreacting to political pressure, pendulum swinging, reliance on persuasive claims and resistance to information sharing;

ii) There is need for cost-benefit of programs and practices. This is a push for accountability of public education;

iii) There is need to test a number of popular theories (myths) about the effects of education on student development;

iv) Educators have a professional responsibility to appraise the quality of their school programs, and they constantly seek ways of improving that quality;

v) There is need to reduce uncertainty about educational practices when experience is limited;

vi) There is need to satisfy external agencies demands for reports, to legitimize decisions, or to improve public relations through credible, data-based decision making;

vii) Evaluation is a political activity which is used as a source of power to influence the outcomes of

an education system. Thus, the importance of methodological and technical expertise are overshadowed by the interpersonal, ethical and political influences that shape the evaluators work.

The present study supports the Wothen and Sanders conceptualisation of evaluation as having one goal. According to them the goal has been considered as the determination of the worth of what is being evaluated. The present study proposed that the goal of the evaluation system is the determination of the level of the need satisfaction achievement in the tetrahedral pyramidal model of evaluation discussed in Chapter Two. According to the present study, maximum need satisfaction is the apex of the pyramid in figure 2.1.

Ebel (1977) in answering the question "are examinations useful?" said that the effectiveness of instruction depends on systematic evaluations of achievement and examinations are an effective means of providing information essential to evaluation.

However as the Local Examinations syndicate, University of Cambridge (1976), reported in the process of serving its functions, the public examinations influence the teaching methods such that it leads to the use of examining techniques as the teaching techniques. Thus they may restrict the curriculum and the extend to which educational objectives are achieved.

Despite the criticism against evaluation due to its side effects, in this study the broad goal of evaluation was considered to be the determination of the level of need satisfaction derived from a program. The specific functions were summarised as follows;

i) Facilitate guidance and counselling in educational institutions;

ii) A source of motivation for individuals to work hard for the better;

iii) Used as a tool for selection, for further studies or allocation of certain responsibilities in the society;

iv) Enable the promotion of individuals or a group of people in the community;

v) Help in the determination of the effectiveness of the teaching methods;

vi) Help in the determination of the achievement of specified National goals and objectives;

vii) Used in the identification of certain abilities, for example, intelligence and creativity;

viii) Help the individual to evaluate personal ability in a specified area;

ix) Used in the classification and certification of individuals in the society;

x) Help in decision making and accountability in education;

xi) Serve socio-political functions when used to increase awareness of special activities, motivate desired behaviour in relation to certain values or promote public relations;

xii) Serve administrative function;

xiii) Provide a basis for research in education.

As the result of the many functions that evaluation serves, it is unfair to use a test for apurpose for which it was not intended. This is evaluation abuse and is likely to result in the formation of negative attitudes towards the purpose of evaluation.

The highly debatable role of evaluation in education made it imperative to investigate the perception of evaluation methods in secondary schools by students and teachers, in the present study. The public National Examinations were investigated in relation to their importance in measuring the acquiring and utilizations of knowledge; measuring quality of acquired skills; monitoring learning progress; facilitating job placement; assess teacher effectiveness; usefulness in guidance; improving quality of education; encouraging constructive thinking and creativity; identifying the needs of the students; providing useful information; and enabling students recognise that education is a life long process.

The other evaluation methods considered in this research were Teachers Comments on the students behaviour or work (TC), Class Assignments(CA), Class Projects(CP),

Mock Examinations (ME), Termly Tests(ET) and teacher-made tests administered according to the teachers' programme or referred to as Periodic Tests (PT). The perceptions of the importance of these evaluation methods was investigated in relation to their significance in : assessing the final achievement of the students in school; influencing the teaching methods; measuring the amount of knowledge acquired; considering the needs of the students; and encouraging creativity.

In this study the teacher's role was considered to be a very important factor in the process of evaluation. Thus the perception of the importance of the teacher's methods of evaluation was investigated in relation to their significance in: monitoring Academic Progress (AP); predicting performance in Public National Examinations (PN); facilitating Career Choosing (CC), Motivating the Students to work harder (SM); helping students to fit in society while still at school (FW), assess the obedience of students in relation to school rules or norms (OA); and helping students to fit in the society after graduating from school(FA).

3.3 SELF-EVALUATION OF ABILITY

The way an individual rates his or her ability in relation to the demands of evaluation can affect the impact of evaluation on the individual. In this study this phenomenon is referred to as the self-evaluation of

ability. Self-evaluation of ability includes an examination of:

i) Locus of control (Locus of Standards);

ii) Self-presentation view;

iii) Self-determination;

iv) Self -awareness;

v) Self-perception of motivation;

vi) Self in thought and memory;

vii) self-disclosure.

Locus of control refers to the nature in which individuals believes about the source their sucess or failure in relationship to their own behaviour. This can be of critical importance to the way in which they cope with stress and engage in challenges. Lefcourt (1976) argued that man must come to be more effective and be able to perceive himself as the determiner of his behaviour if he has to live comfortably with himself. An overly predictable person generates little arousal or interest and often creates boredom in others. Lefcourt argument is only true to a certain extend because unpredictable person may also arouse excessive anxiety and uncertainty leading to stress. In such cases such stress producing persons may not be easily acceptable by others.

Knowledge that one can exert control serves to mitigate the debilitating effects of aversive stimuli.Helplessness, a perceived inability to effect one's behaviour meaningfully, is the natural response to the deprivation and denigradation and, in turn, is a source of

immature and poor coping behaviour. Individuals who perceive themselves as actors and responsible for their behaviour are considered to have an internal locus of control while those who attribute the cause and effect of their behaviour to external forces are considered to have an External locus of control.

Individuals with internal locus of control are expected to be more adaptable to new environment and capable of manipulating the environment to achieve their objectives. Battle and Rotter (1973) carried out a research which indicated that lower-class black children produce more responses coded as external (Mean = 18.3, SD =3.4) than did either middle class blacks (Mean = 15.8, SD = 3.5 or middle class whites (Mean = 15.0, SD = 4.4). This is in agreement with Lefcourt's (Ibid) arguement that those who are able, through position and group membership, to attain more readily the valued outcomes that allow a person to feel personal satisfaction, are more likely to hold internal control expectancies. People in deprived social position and severely punishing environments create a sense of fatalism along with infantile and aggressive behaviour.

However, Lefcourt (1976) further argued that no matter the experiences one has, if they are not perceived as the results of one's actions, they are not effective for altering the ways in which one sees things and consequently their functions. When a person believes that he is the responsible agent or source of his own life fortunes

(Internal locus of control), he will resist influential attempts which aim to bypass his own senses of moral justice, and will only respond to those appeals that address themselves to his own believes and values. In the self-perception process, the actor and the observer are the same person. The perceiver wants to know whether an event was caused by some attribute of the situation (external attribution) or by some attribute of the actor (internal attribution).

Individuals who have internal locus of control are expected to believe that:

i) the world is predictable, or is not determined by chance; and

ii) the predictable world can be manipulated with their own skills.

Those with external locus of control on the other hand are expected to believe that:

i) the world is unpredictable or chance-determined;

and ii) they are unable to manipulate the world with their own personal skill.

Borden and Hendrick (1973) asserted that internal-External (I-E) locus of control has a significant effect on the self-perception, and therefore, self-evaluation of an individual's ability. The concept of locus of control was derived form the social learning theory by Rotters in 1954 for measuring individual differences in the extent to which reinforcement is viewed as a consequence of one's own

behaviour (Internal locus of control) or a consequence of such forces as "chance," "fate" or "powerful forces" (external locus of control).

Gore (1962) found no differences in influenceability between internals and externals oriented in individuals when the attempt to influence was over. When subtle, the internal oriented people resisted the persuasive attempts by responding in the opposite direction to the expected response. Maseili and Atrochi (1969) pointed out the importance of the I-E control dimension in the area of interpersonal attribution. They suggested that the internal person who expects his own intentions to have effective relevance to the world around him may assume that this is true for others as well, and that a more external individual who expects that his intentions will not necessarily influence the situation may make a similar assumption about other's intentions. This argument was supported by Borden and Hendrick (1973), who further asserted that external subjects are likely to be more sensitive than internals to changes in reinforcement contingencies. This argument may be true because the external locus of control individuals are at the mercy of the external environment and are not sure of the consequences of any changes, as opposed to the internal locus of control individuals who feel they will control the final net effect of changes in the environment.

People with internal locus of control are open to experience, self-actualizing and assimilate information

about themselves (Evans and Seeman, 1962). They further noted that internals avail themselves of information, even if it has negative connotations for themselves more than do externals. They (Evans and Seeman) concluded that internals believe that they can act on their own behalf and therefore require more information, while externals more readily accept dependency on more competent others. Information seeking increases the probability that internals can more succeed in skill-seeking tasks than externals. This argument was supported by Rotter and Mulry (1965) when they reported that the ways in which individuals focus upon cues or relevance for goal attainment is important and also indicated that internal oriented devote more attention to decisions about skill-related matters than do external oriented individuals. Phares (1968) also argued that internal oriented individuals make better use of information than external oriented individuals despite the fact that both might have equivalent funds of information.

The suggestions on the effect of locus of control, for example by Evans and Seeman, led the present researcher to conclude that individuals must entertain some form of hope that their efforts can be effective before one can expect them to make the sacrifices that are prerequisite for achievement. Thus, academic achievement in schools requires that the youngsters persist at activities such as reading when the immediate inclinations might be to play, daydream or to socialize with a friend. This requires that

the students defer gratification. Bialer (1961) supported the positive correlation between locus of control and the ability to defer gratification. The achievement effort and willingness or ability to tolerate delays in attainment of reinforcements are related to the perception of causation. Engagement in achievement activity or long-range skill-demanding tasks is unlikely if one views himself as being at the mercy of capricious external forces.

Convert and Goldstein (1980) in a study on "Locus of control as a predictor of user's attitude towards computers", using 68 undergraduates demonstrated a relationship between locus of control (measured by Rotters I-E scale) and attitude towards computers. They reported that internal subjects had more positive attitudes towards computers than external subjects.

Krovetz (1979) using Rotters I-E scale, supported the I-E locus of control theory in a research using 120 undergraduates at the University of North Carolina as subjects. He reported that internally oriented persons perceived themselves as possessing the ability to control their outcomes. Externally oriented persons however, perceived that external factors such as chance influenced their outcomes. Similar results were reported by Wolk and Ducette (1973) at Temple University using 53 students as subjects.

It is concluded here that internal oriented individuals are more cognitively efficient, more alert to potential meanings of their experiences and less easily

coerced by environmental influence. Thus, avoidant, defensive mannerisms associated with deviance and malfunctioning should be less evident among persons who continue to strive after valued goals in the belief that their efforts are meaningful and effective. However, these researches by Convert and Goldstein, Wolk and Ducatte, and Krovetz used University students. This may not be true for secondary school students. This led the present study to investigate the issue of locus of control at secondary school level in relation to academic performance.

Katkovsky et al (1967) pointed out that the child's belief in internal control of reinforcements are related to the degree to which their parents are protective, nurturant, approving and non-rejecting. The maintenance of a supportive, positive relationship between parent and child seems more likely to foster a child's belief in internal locus of control than is a relationship characterized by punishment, rejection and criticism.

Davis and Phares (1967) in their contribution to the parental effect on the development of locus of control, hypothesised that parental restrictiveness and directiveness can inculcate control expectancies in children. This was expected to be possible in children whose opportunities to test their experience witness the consequences of their own behaviours curtailed. They proposed that extreme internal children have parents who have more positive involvements with less rejection, less hostile control, consistent discipline and less withdrawal

from them than did extreme externals. The fathers of internals were said to be more indulgent and less protective than their mothers, while fathers of externals were less indulgent and more protective than their mothers. A similar argument was advanced by Shovel (1967).

The suggestions by Katkovsky, Davis and Phares and Shovel led the present research to be of the view that the security provided by the loving, non-threatening parent is especially necessary for the child to be able to internalise the responsibility for the negative reinforcements that are received by the child. Conversely a mother's rejecting and dominating behaviour encourages the child to believe that external factors outside the child's control are responsible for rewards in intellectual situations. That parental protectiveness, babying, affection and approval are related to the development of an internal locus of control indicates that a certain degree of insulation must exist around a child, an insulation against more aversive experiences, if a child has to develop a sense of self as a creative agent.

It may be that; warm, protective, supportive maternal behaviours are necessary for the assumption of personal responsibility during childhood, but in the long run, militate against internality at maturity. Perhaps internality at lower developmental stages is best facilitated by some of maternal "coolness", criticalty and stress; so that the offspring is not allowed to rely on overly indulgent affective relationship with their mothers,

but are forced to learn objective cause-effect contingencies, adjust to them, and recognise their own instrumentality in causing outcomes.

Mothers of internal oriented children are more likely to "push" their children toward independence, and display less intense involvement. A "push" from the nest functions to put the child into more active intercourse with his physical and social environment. This in turn ensures that there is more opportunity for him to observe the effect of his own behaviour, the contingency between his own behaviour and ensuing events unmediated by maternal intervention.

The possibility of parental influence on the child's development of locus of control led the present research to investigate how teachers and students perceive parents as a source of evaluation.

Penk (1969) found a chronological relationship between age and locus of control. Age correlated positively with internality ($r = 0.27$, $p = 0.01$). Similar findings were reported by Bialer (1961). The mental age and locus of control were significantly related. Penk and Bialer's findings suggest that age influences an individuals' nature of locus of control.

Gunars and Reimans (1971) investigated the effect of teachers and the students nature of locus of control. They instructed teachers on how to encourage internality by identifying reinforcement principles that were reinforcing to each individual. Community college students were

counselled, so as to be internals. There was an increase in internality, but the effect was strong among males than females. Similar findings were reported by De Charms (1972) in a research, in which he established programs aimed at encouraging internal origin of behaviours in schools. The subjects were helped to :-

i) Determine realistic goals for self;

ii) Know individual strength and weaknesses

iii) Determine concrete action that can be taken to help reach the goal;

iv) Consider how to tell whether a goal is being achieved, that is, whether the individual's action is having the desired effect.

Exercises were set which emphasised self-concepts, achievement motivation, realistic goal settings planning, personal responsibility, feelings of personal causation and self-confidence. A sample size of 512 children participated in the research and results showed that personal training affected the ways in which children produced imaginative stories. Gunars and Reimans; and De Charms findings suggest that teachers can be used to direct the nature of students locus of control for the improvement of academic achievement. This necessitated the present research to be carried out in Kenya by investigating how teachers are perceived as a source of evaluation.

Lefcourt (1976) generalised that students who are strongly internal in the personal sense have higher

achievement scores and achieve higher grades in college. External oriented individuals are self-pitying, so that one may be an external because he is in fact weak physically or intellectually in relation to those around him. A person may also describe himself as an external because he is in a highly competitive social situation, where the actions of others may have great relevance for the success of his own efforts. Thus locus of control can be considered as circumscribed self-appraisal pertaining to the degree to which individuals view themselves as having some causal role in determining specified events. This implies that locus of control cannot be generalised to all activities. Thus, in this study the locus of control was considered in relation to school activities, particularly performance in academic work.

Wegner (1980) argued that in the evaluation of self, the following standards are considered by the individuals:-

i) Pain standard in which the person views the self more positively when the self is successful in avoiding physical pain, punishment, loss or other unpleasant experience;

ii) The pleasure standard : where a person views the self more positively. When the self ii successful in obtaining pleasure, rewards, the gratification of physical needs, or other enjoyable experiences;

iii) The approval standard : where the person views the self more positively when the self is liked by others, given approval by the others or incorporated into their group;

iv) The normative standard, where one compares favourably to others or typical behaviour in relation to rules, conventions and laws;

v) The justice standard, where the person participates in fair balanced and reciprocal relations with others.

Considering these standards, it is possible that people with internal locus of control are likely to view the self more positively than people with external locus of control.

Another factor that has received attention in relation to evaluation of an individual's ability is the self-concept of the learners. A study in the united States of America by Fink (1962), found a significant relationship between low self-concept and academic under-achievement, and that this relationship appears to be stronger in boys than in girls. Similar results in America were reported by Shaw and Alves (1962) who concluded that male under-archievers have more negative concepts of self than do achievers. Later Combs (1965) reported that under-achievers in America saw themselves as less effective in influencing to others, they perceived peers and adults as less acceptable, showed a less effective approach to

problem solving, and demonstrated less freedom and adequate emotional expression, than achievers.

These research results show that self-concept and gender are two of the factors that may be influencing learning and performance. But they fell short of considering how the learners perceive the evaluation process.

Jones and Grieneeks (1970) examined the relationship between measures of self-perception and academic achievement in a sample of 887 students at college level in America. They used the self-expectations inventory and the self-concept of ability scales for measuring self-perception; and grade point averages and scholastic Aptitude Test as measures of academic achievement. They found a positive relationship between self-perception and academic achievement. Smith (1969) carried out a research in the U.S.A. using 5,777 subject whose ages ranged from 9-11 years. He found that self-attitudes and personal motivation correlated highly with academic performance.

Burns (1979) attempted answering the following questions concerning self-evaluation:-

i) What is the relationship between the pupils' self-concept and academic performance?

ii) What is the effect of different forms of school organization on pupils self concepts?

iii) What roles do feedback, reinforcement and expectations play in modifying self conception and attainment?

iv) What is the relationship between teachers' self concept, and their classroom style?

v) Can modifications of pupils and teachers' self-concepts through counselling and intensive groups, have any effect on pupil's and teachers' classroom performance?

Burns concluded that academic attainment does not only depend on cognitive ability, but is also affected by the self concept, the dynamic and motivating set attitudes held about oneself. Evaluation of one's academic achievement is part of self-evaluation, so that a successful student comes to feel competent and significant, while a failing student comes to feel incompetent and inferior.

According to Burns (Ibid), the students' world is school, his (student's) basic tasks are school tasks, it is the most salient area of his life and yet so public, open to inspection by significant others. Each student has formed fairly firm pictures of self-worth which provides him with an array of self-expectations about how he will behave in school work and how others will react to him as a person. Schools stand for even more evaluation than the child has already contended with at home. Unfortunately, most students have little choice about the areas in which they must perform, and therefore sometimes unwillingly subjected to evaluation.

Burns reported a significant relationship between low self-concept and academic under-achievement. The under-achievers saw themselves as less adequate; perceived peers

and adults as less acceptable; showed less effective approach to problem solving; and demonstrated less freedom and adequacy of emotional expression. Low achievers tend to express more negative self-feelings than high achievers. Jones and Greneeks (1970) reported that there was a positive relationship between measures of self-perception and academic achievement, this was also supported by Burns (1979). Similar results had been found by Fink (1962), Shaw and Alves (1962), Walsh (1956), Simon and Simon (1975) and Smith (1969). Brooker et al (1964) found a significant positive correlation between self-concept and performance in academic work, also self-concept was significantly and positively correlated with perceived evaluations that significant others hold of students. They (Brooker et al) also found that self concept of ability was a significant factor in achievement at level; this was in agreement with Burn's report.

Heyneman (1984) in Uganda, investigated the issue of why impoverished children perform well in schools. He found that self concept was related to performance in mathematics, English, and general knowledge irrespective of sex, ethnic group and district. A child who felt confident and more self-assured performed better. Skaalivik (1983) examined Academic Achievement, self-esteem, valuing of the school and sex-differences among Norwegian children. He found that students with low self-concept were less academically successful when compared to those with high self concept.

Maqsud (1983) investigated the relationship of locus of control to self-esteem, academic achievement and prediction of performance among secondary school students in Nigeria. He observed that self-concept was significantly related to better performance in mathematics and English. Thus change in self-concept was associated with similar change in academic performance. Bohrsted and Felson (1983) in a research aimed at explaining the relations among children's actual and perceived performances and self-esteem, found a positive relationship between self-concept and academic achievement. However, Reck(1980) in a study that compared the rural Appalachian and urban non-Appalachian students, found no significant relationship between self-concept and academic achievement. Thus indicating that it is not always true that self-concept will always promote good academic performance, and therefore further research in the area was required, which this present study carried out.

Maritim (1980), in a study in Kenya (Kipsigis) found that self-concept and the teachers' perception were the strongest predictors of grade attainment. The findings showed that pupils who thought highly of their abilities significantly out achieved those who had low perception of their abilities. Also pupils who were highly thought of by their teachers had higher grade scores and high self-concept scores. Maritim (Ibid) concluded that one's self-concept and the significant others' perception are good predictors of achievement in test performance.

Another research by Maritim (1984), using a sample size of 235 primary children in standard 3,5, and 7 in Nairobi, reported that the frequencies of teacher - pupil interactions and positive feedback showed statistically significant correlations with school performance in English, Science and History in standard 3 and 5, but the correlations failed to attain statistical significance in standard 7. Performance in mathematics did not correlate highly with the frequencies of teacher-pupil interactions. However, the researches by Maritim did not consider the perception of the evaluation system by teachers and students, which the present study investigated.

In Kenya, Mwaniki (1973) using four schools consisting of a total of 189 pupils reported a positive correlation between self-concept measures and school achievement in primary schools. Mwaniki also found a significant difference in self-concept and mental ability between urban and rural pupils. She found that urban pupils had a more positive outlook to life and had higher mental ability than those in rural areas. The difference was attributed to good teachers and more knowledgeable parents in urban areas than rural areas. The research did not address the issue of the relationship between the perception of evaluation and academic performance, which was addressed in the present study.

Mwamwenda and Mwamwenda (1987) in a study on "Self-concept and Academic achievement in Botswana" found that the pupils with low self-concepts scored significantly

better than pupils with high self-concept in the overall performance; as in the subject matter examined : Mathematics, English, Science and Social studies. Mwamwenda (1991) found no significant sex difference in self-concepts among African Adolescents in Umtata, South Africa. Although Omizo (1981) among Mexican-American standard seven students and Hattie and Song (1984) in Korea, Smith (1978) had reported that boys had higher self-concepts than girls; while Wylie (1968) in the America reported that girls had more positive self-concepts than boys. As a result of these conflicting findings, the present research investigated the issue by comparing the locus of control of boys and girls in Kenyan secondary schools.

From the available literature it can be said that self-evaluation which leads to the formation of self-concept, determines to a great extent, the degree to which a learner perceive himself as of no consequence or of consequence as a result of what he has learned from the significant others. This implies that the formation of self-concept should be in the jurisdiction of the teacher, depending on how the teachers interact with the learners. Yet there is scarcity of available research in Kenya on this vital educational topic.

In this study self-evaluation of students and teachers was investigated using the locus of control scale. The self-evaluation of students and teachers was also investigated in relation to how the teachers and students

perceived the importance of assessment methods in predicting the performance of students in the final public National Examinations.

3.4 A BRIEF REVIEW OF CHANGES IN EVALUATION IN KENYAN SCHOOLS

After discussing the concept of evaluation, functions of evaluation and self-evaluation of ability, what follows in this chapter is a review of the changes in evaluation focusing mainly on Kenya.

The evaluation system in Kenyan schools which places great emphasis on formal Public National Examinations is exotic. Public Examinations as used today originated in China. In their early days in China they were seen as means of liberation from inequalities of advancement through privilege, patronage and wealth. The examinations at that time were used to encourage systematic study and punctuality attendance among the students (Mathews 1985). Senior government officials, even the Prime Minister had to frequently compete in examinations and score highly in order to retain his position. From China the use formal public examinations spread to other parts of the world.

The use of Public National Examinations in early China had one major short coming of discriminating against females. On the contrary it was claimed to be used as a means of liberation from inequalities of advancement. This implies that misuse of Public Examinations is not a new phenomenon.

The schools and formal examinations were introduced in Kenya by the colonialists from Europe whose main aim was to treat the indigenous people as servants. In this respect there were different schools and examinations for the Europeans and Africans in Kenya. Before the advent of formal education the main method of acquiring skills was by being attached to a person who was considered as an expert in a particular field and learned on the job. There was informal evaluation in which the individuals had to demonstrate observable competence on the job.

During the colonial era there were three distinct examinations ; those meant for Europeans, Asian, and Africans.

According to the African Advisory Council Report (1956) there was a 4-4-4 education system and examination intervals, mainly for Africans. This corresponded to what was called primary, intermediate and secondary education. In this system the students sat for public examinations after four years of primary education before being promoted to intermediate schools. The intermediate education lasted four years followed by an examination which enabled one to join the secondary school for a four years course before another public examination. After a four year course of secondary education students sat for the Cambridge Overseas School Certificate. It can clearly be seen that the public formal examinations in Kenya were probably being used by Europeans to promote racial discrimination, among other reasons.

Post-School (after secondary education) certificate courses were done at Makerere College, Kampala, Uganda, as intermediate courses. Those who were successful went on to study for degree courses.

In the early 1'960s, the Kenya colony introduced Post-Certificate courses in selected African Boys Schools and for girls, they were planned to start later. This was a two year course, in which the post-certificate examinations were taken during the 6th form. This led to the establishment of a 4-4-4-2 education system and examination intervals. The last two year course led to the Higher School certificate examinations. Although examinations were being used to select African candidates for certain career training, it is evident that they were biased against girls. Planning for girls was not given same preference as that for boys.

The Asians had combined Primary and Intermediate courses for 7 year, and 4 years of secondary education. The Higher School Certificate courses for the Asians were started at Royal College (present University of Nairobi). Non academic subjects were provided for Asians and European Schools but not African schools. Some European schools had Higher School Certificate Courses. The candidates who were successful in Higher School Certificate work or intermediate course were eligible for admission to degree courses at Makerere and Royal College.

This discriminative use of evaluation was not acceptable over the Kenya colony. Thus, in 1960, the

Advisory Council in African Education (under the Chairmanship of Gregg) recommended that each district was to proceed at its own pace in the light of local circumstances and particularly that of finance, staffing and buildings. There was no general racial integration policy. The council meeting (1960) agreed that combined primary and intermediate course (of 8 years for Africans) should be generally reduced to one of 7 years and the process was to be fully effective in (1964) so as to establish a 7-4-2 examination intervals before admission to university.

The 1960 Council meeting also recommended the streaming of African students, so that the intermediate schools were to recruit students into two categories.Those with high scores to be admitted in stream A and those with low scores to be admitted in stream B. The council argued that with a small teaching staff, much diluted in quality, the resulting fall in standards was likely to be catastrophic. The weaker children's interests would certainly be sacrificed for those able and they in turn would be held back by the presence of the slow and stupid. The council concluded that even a well qualified teacher would find an ill-sorted class difficult to handle.

The students in stream B were only to be awarded Kenya African Primary Certificate (K.A.P.E.) after 8 years of primary. They were supposed to follow a less ambitious syllabus academically, and have slightly more practical bias than the A stream. The A stream was supposed to

prepare students to join secondary schools. With streaming, the council (1960) agreed that the Competitive Entrance Examination (C.E.E.) offered after four years of primary Education would be abolished. The Council proposed that with the introduction of 7 years of primary Education in African schools, certain reduction in the scope of syllabus in general subjects would be necessary, but not the lowering of standards. The conversion to a 3 year intermediate course was to be complete in January, 1964, when two groups would be discharged from intermediate school : one having completed 4 years and the other 3 years of intermediate education.

The African Advisory Council on African Education chaired by Miller, D.S. (3th May, 1960) proposed that there should be a universal 7 or 8 years of primary Education in the Kenya colony.

The council noted that this proposal would inevitably involve a reduction of standards of education, but standards were not to be allowed to drop dangerously.

The African Advisory Council on African Education chaired by Miller, D.S. (17th February, 1959) considered the issue of Examinations and Examination results. The council noted that with different syllabuses, subjects and length of courses, it was not possible to correlate the results of the various preliminary examinations. All that could be said was that general progress was being made towards similar examinations with common syllabus in certain key subjects and course of similar length. The

abolition of the Competitive Entrance Examination (C.E.E) for promotion from standard IV to standard V in African schools could not yet be effected.

The Arabs, Asians and Europeans had a seven year course of primary education, which the Europeans were even allowed to complete in 6 years. The European children sat for the Kenya European Preliminary Examination (K.E.P.E) and the Asians and Arabs sat for the Kenya Asians Preliminary Examinations (A.P.E). Those who were successful went to grammar school, where they took a four year course leading to the Cambridge Certificate Examination (C.C.E). The seven years of primary Education would bring the African system in line with that of the other races. However, the Council recommended that the Africans should not sit for the C.C.E., but instead they should sit for the General Certificate of Education (G.C.E. 'O' level) since C.C.E insisted on a passing in English Language, which was not a mother tongue for the African Children.

Stress producing effect of examinations were not uncommon in the colonial days. For instance according to the Department of Education secretariat Circular Number 34 (1928) concerning Examinations of the European Government Officials, both civil and military, were required to pass in languages, a pass in Kiswahili was compulsory for the Europeans. The circular said that, failure to pass in the preliminary Swahili oral Examination may, in the absence of an explanation satisfactory to the government, affect the seniority of the officer in his appointment. The

government officers were required after 1 year and within two years of appointment to pass the lower standard Swahili Examination, both oral and written. Failure in this examination without satisfactory explanation to the government would lead to salary increments being withheld.

The secretariat Circular No. 34 (1928) further said that after 6 years of working experience, an officer was expected to pass the High Standard Swahili Examination, both oral and written. Failure without explanation to the government would lead to the salary increments being withheld. A pass in a native language (Hamatic, Bantu, Maasai or Samburu, Turkana, Luo) was compulsory for all officers within 10 years of first appointment to government service in Kenya. Those who passed with more than 80% in the Higher Standard Swahili Examination and a distinction in any one of the vernacular examinations, were given a bonus of $ 50.

This is a clear manifestation of the fact that it was not only the students who were under the stress of passing examinations but also government officers, if they were to get full reward from their jobs.

Despite proposal to improve the education of Africans so as to be on the same level as that other races, resistance against racial discrimination was mounting. As a result of this resistance, in 1959 and 1960, there was a debate as to whether children of other races should be admitted to Asian secondary schools. This can be illustrated by the following letter received by Education

Department Examination section on 12 December, 1959. This is a letter from an African child who had been admitted to an Asian School:

Sivilie Primary School
Bunyala Location
P.O. Box 72
KAKAMEGA

10TH December, 1959

The Examination Officer
P.O. Box 12259
NAIROBI

Dear sir
RE: APPLICATION FOR COMPLAINS

Please sir, I am an African boy who attended an African School, then I did Kenya African Preliminary Examination, I have K.A.P.E. Certificate. I want to join Eastleigh Secondary School, P.O.Box 2520. Then the Principal tell me that unless I pass Kenya Asian Preliminary Examination he cannot take me. Sir, how could I happen to do that and yet I attend an African School? Thus why I write to you that perhaps you can also help me that.

Here I ask you to solve for me sir, through your kindness. I beg to remain,

Yours truly,

(Name withheld)

N.B. The contents of the letter and language used has not been edited by the researcher.

Despite the resistance against discrimination in education, a meeting by the Education Department in January 1960, rejected the proposal that children of other races be admitted to Asian Secondary Schools whenever and wherever accommodation was available.

The meeting set the following as some of the conditions of entry for Non-Asians into Asian Schools:-

i) That first priority must be given to the admission of Asian candidates who have qualified for admission.

ii) That applications of other races must hold the minimum qualifications for admission as demanded of Asian schools.

iii) The normal maximum size of classes must not be exceeded.

As evidenced by the letter from the African student to join Asian schools evaluation serve a descriminative role. This shows how the status of examinations continued to play a discriminatory role of evaluation in the Kenya colony and Protectorate. The Africans had marginal contribution as far as decision making in educational evaluation was concerned.

The educational debate in the early 1960's ended in the introduction of 7 years of Primary Education, 4 years of Secondary education and 2 years of Higher Secondary education (7-4-2 examinations intervals) before admission to University. This was accomplished in the mid 1960's after Kenya was an Independent nation.

After independence, it was recognised that not all children could complete the first four years of Secondary Education, and was thus split into two sections: This meant that after two years of Secondary education, students could sit for a Kenya Junior Secondary Certificate Examination(K.J.S. C.E) and terminate their studies and join the employment market or continue with education. This meant 7 years of primary education assessed by what was

then called the Kenya Certificate of Primary Education (K.C.P.E), four years in secondary school Education evaluated by the East African School Certificate Examination (E.A.S.C.E.). Then there were two years of Higher Secondary Education evaluated by the East African Advanced School certificate Examination (E.A.A.S.C.E).

The K.C.P.E and K.J.S.C.E. were organised and controlled by the Ministry of Education in Kenya. They were only taken by candidates in Kenya. The E.A.S.C.E and E.A.A.S.C.E were organised and controlled by the Cambridge Overseas Examinations Syndicate in London. The East African Examination Council was set up in 1974 and was charged with responsibility of handling examination affairs in East Africa.

The Kenya National Examination Council (K.N.E.C.) was established in August 1980,with the aim of bringing examinations more in accord with philosophies and goals of the Kenyan system, to provide a more realistic National barometer for the country's educational standards. K.N.E.C is responsible for the management of examinations for primary and secondary evaluation. It comprises of specialists and professionals from the Ministry of Education, Kenya Institute of Education, Universities and relevant bodies in public and private sectors. Apart from the council which deals with matters of general policy,there is:-

i) An Examination Security committee for professional and security matters;

and ii) a Professional Committee which represents broad areas of examinations and subject panels for each discipline examined by the council.

The subject panels report to the relevant professional Committee and method of awarding Certificates as well as making desirable changes in the syllabuses.

In 1970 K.J.S.C.E was abolished in what were then called government schools; these were schools that were fully financed and staffed by the government. It was only administered in Harambee and Private Schools. The Harambee schools were maintained by the community without or with very little assistance from the government. The discriminatory role of evaluation did not seem to end with the end of the colonial rule in Kenya. Even after independence the Africans discriminated among themselves. This is shown when the Kenya government allowed students in some schools which were described as Harambee to sit for K.J.S.C.E but not those in schools considered as government. The Harambee schools were considered to provide an inferior learning environment compared to the government schools. The abolishment of K.J.S.C.E. in all Kenyan Secondary Shools in the late 1970s led to the establishment of the 7-4-2-3 education system.

The harmonisation of the public examinations in Kenyan Secondary Schools did not solve the problem of discontent with the evaluation system. This resulted in the introduction of the 8.4.4 education system. It is possible therefore that the continued low level need satisfaction

(see chapter 2) led to changes in the educational evaluation in Kenya without being based on research. This made it necessary for the present research to investigate how students and teachers in secondary schools perceive evaluation. The nature of how evaluation is perceived is likely to have affected earlier changes and the future changes that will be made in education, in order to improve on the need satisfaction level.

3.5 EVALUATION METHODS USED IN KENYAN SCHOOLS

After considering the functions of evaluation and the various changes made due to the objectives it has been used to measure, it is logical that the specific instruments used should be discussed. Thus, this section deals with an overview of the components of the instrumental dimension of evaluation used in Kenya. According to Odiwour (1984) of KNEC the Kenyan Examination system is concerned with measurement of school achievement, knowledge and skills acquired and how well the skills have been used. The method of assessment at National level is external. The internal method is regarded as not ideal and acceptable. Odiwour observed that the main use of examinations was to facilitate selection and certification. They are therefore expected to be fair, relevant, efficient and equitable.

Odiwuor's assertions do not seem to be what is happening in the education system. The failure of the

expected functions of evaluation is evidenced when Kenyan Newspaper carry such headings as:-

> "Examinations : bad effects on the purpose of education" (The Standard, December 10, 1975, p. 7), "Examinations not useful" (The Standard, March 24, 1986, p. 7) and "Examinations are an unfair burden" (Daily Nation, June 8, 1985, p.7)

With reference to equity Odiwuor said that the public National Examinations are expected to be free of leakage. However, this is not quite true, for example, the Newspapers reported cases of the following nature : "Examinations racket exposed" (Standard, October 9, 1978, p.1), "Examinations postponed due to leakage" (Sunday Standard, November, 9, 1980, p.6), "Examinations were leaked" (Daily Nation, December 22, 1985, p.7), "Examinations cheating exposed" (The Standard January 4, 1987,p.1), "Examinations cheats : where lies the blame?" (Sunday Nation, February 14, 1982, p. 13), "Examination cheats will not be tolerated" (The Standard, October 3, 1978,p.4) "Examination container found open" (Daily Nation October 15, 1985,p.1), "Examination leakage; Boy charged" (The Standard June 20, 1987,p.5), "Examination leakage suspects arrested" (The Standard February 1, 1982,p.1) and "Examination cheat fined Ksh 3,000/=" (Daily Nation, December 3,1983,p.3). These indicate the malpractice people are forced into due to the need to pass examinations.

The results are not supposed to be affected by the sex differences among students, social economic class or geographical region, (for instance urban and rural differences). The examinations are expected to be relevant

by enabling the students acquire the ability to apply the knowledge gained from school. The efficiency of the examinations is supposed to be demonstrated by being able to discriminate well between bright and less bright candidates. The purpose of evaluation does not seem to be achieved as shown by the following researches.

Maritim (1983) in a research on the Dependence of 'O' Level and 'A' level results on the sex of the examinees in Kenya; reported that at the 'O' level the males were superior to females and at 'A' level females were superior to males except in Chemistry and Physics. From the study Maritim (p.28) stated that:

> Differential perceptions of the positions of boys and girls in the society may have some indirect effect on their performance in examinations. These two sexes develop different perceptions of what academic success or occupational opportunities mean.

The study emphasized the importance of perception in learning and academic performance. The study further reported that objective tests favour males, while essay tests favour females. This means the method of evaluation also determines performance of the learners.

Eshiwani (1984), in a paper entitled " Access without success: some reflections on Achievement in Education in Western Province of Kenya," reported that an analysis of C.P.E. results from 1976-1981 showed that the province occupied the last but one position in the country. From 1976 the province had the highest percentage of failures of its candidates in the last eight years. Eshiwani attributed the poor performance in secondary schools in

Western Province to the presence of Harambee streams attached to government maintained schools, overcrowded classes, under-staffing, lack of physical facilities, poor organization of homework, inefficient Head teachers, inefficient Education Officers, in-effective Parents Teachers Association (P.T.A.), indifference among teachers and influence of bad social factors (e.g drinking and smoking). This research in Western Province of Kenya did not consider the issue of self-perception and perception of evaluation.

Eshiwani (1986) in a study of private schools in Kenya concerning some aspects of quality of education, reported that Government aided, and unaided schools (Harambee and Private) differ considerably in the quality of schooling. In most cases aided schools offered a higher quality than the unaided schools. Eshiwani further found out that the academic achievement in unaided school was dismissal. For instance, in 1981 48.2% of the students in the schools failed the 'O' level examinations. The poor performance in the private schools was attributed to the low quality of teaching and lack of physical facilities. The study made no mention of perceptual differences among students in relation to their abilities and nature of evaluation methods.

Mulambula (1985) on stimulus organization based on the Gestalt principles showed that there was no significant differences in the principles applied to perceive a visual stimulus when gender and environment (urban and rural),

type of school (Government, Private, Boarding/Day, Mixed/Single) were considered. A significant difference was reported only in problem solving.

Although the study indicates that students apply the same principles in perceiving a stimulus, it did not investigate how they perceive their own abilities in relation to evaluation methods, in schools.

The concern about learning and academic performance has not subsided. The criticism against evaluation methods, their plausibility, and the various changes continuously made in the evaluation methods made it necessary to research on the perception of the methods of evaluation in schools, with particular reference to public examinations since they are widely used as means of evaluation.

A summative evaluation at the National level is aimed at assessing overall change in behaviour for purposes of curricula evaluation and other national needs (Odiwuor, 1984). The national needs are implemented by teachers. The effectiveness of implementation is measured using external examinations, which consists of well designed tests, according to Odiwuor's report. Given the importance of examinations in Kenya, teachers are more likely to concentrate on drilling the students to pass examinations and ignore the correct interpretation of the curriculum.

According to Wilson (1985), education is essentially the sort of thing to which the concept of equality does not apply. He argued that institutions and syllabuses,

examination and educational authorities may have their part to play, but what makes education a reality is the personal relationship no question of equality can arise. He concluded that streaming, special attention, remedial training, contravene the principle of equality. Thus, equal opportunities does not imply ability or willingness to do something.

Viewed from a critical perspective, it is difficult to have an evaluation instrument that meets the requirements of being fair, relevant, efficient and equitable. The difficulty arises from the fact that there are a multiple of factors that affect the performance of candidates during examinations. Some of the factors are gender differences, differential availability of facilities, teaching methodology, learners' motivation and differences in leadership styles in various schools.

In Kenyan schools the following methods of assessment are used:

i) PUBLIC EXAMINATIONS

These are Examinations mainly organised by the Kenya National Examination Council. These are K.C.P.E. for Primary schools and K.C.S.E. for secondary schools. They are used for issuing National Examination Certificates.

ii) MOCK EXAMINATIONS

These are examinations taken mainly by students who are preparing for National Public Examinations either in standard Eight or Form IV. These are of two types: Internal and External Mock examinations. Internal Mocks are

organised by the individual schools. The external Mocks (or also called Joint-Mocks) are organised by several schools at different levels, for example at divisional, district or provincial level. In the Western Province of Kenya all Form IV students sit for the provincial Mock examinations. The Provincial Mock is set by teachers selected from secondary schools who form the examining provincial body. They are used by schools as the final estimate of the performance of students in the final national public Examinations.

iii) MID-TERM, MID-YEAR AND END-YEAR EXAMINATIONS

These are internal examinations which consist of tests constructed by a group of teachers in the same school to assess the progress and achievement of students after a term or half-a year or year or a number of years. In this study they are referred to as Terminal Tests (ET). The results of these examinations are communicated to the parents, so that the parents are informed about their children's progress and achievement in the school work. They are used in schools to stream students according to their abilities, allocating examination index numbers and to some extend intimidate students with expulsion due to poor performance. They are also used as indicators as to how the students are likely to perform in the final public examinations.

iv) PERIODIC TESTS

These are Teacher-made tests administered on weekly basis or specified interval by the teachers or school. They are used to assess the continuous progress of

students. They are used by teachers to evaluate what they have taught to students and develop more efficient teaching strategies. These are more closely related to the teachers' particular objectives, and more likely to take into account the needs, backgrounds, strength and weakness of the students. Without classroom tests, the objectives that are unique to a particular school or teacher might never be evaluated. Apart from the periodic tests or classroom tests, the teacher continuously evaluate the students during each lesson.

v) CHARACTER OR CONDUCT ASSESSMENT

This is the evaluation carried out by teachers mainly in relation to the students adherence to school rules or code of conduct. The criteria of this method of assessment is obedience as far as school rules are concerned. The assessment is reported and communicated to the students and parents in a form of Teacher's Comments.

iv) ASSESSMENT OF GENERAL OUT-OF-CLASS ACTIVITIES

This is concerned with the assessment of the activities that are not examinable by a formal examination or test, for example participation in sports, games, clubs, school leadership and decision making. Assessment of these activities is communicated to the students and parents through teachers' comments.

The common use of the Teachers' Comments in the assessment of cognitive, affective and psychomotor activities made it necessary for it to be considered in this study as one of the methods of evaluation in schools.

A look at the various functions of the different evaluation instruments clearly points to the fact that no one examination can serve all these functions. Therefore, the great dependence on the use of public examinations compared to the other evaluation instruments is exaggerated and unrealistic. Over-dependence on the use of public examination is most likely not to lead to high level of need satisfaction in the tetrahedral pyramidal model (4-pm) of evaluation. It is quite evident that each evaluation instrument measures a certain achievement of need satisfaction that may not be effectively measured by other instruments. In view of these different functions of the components of the instrumental dimension in the (4-pm), the present research investigated how they are perceived by students and teachers in secondary schools.

3.6 PERCEPTION OF EVALUATION METHODS

In chapter 2 (pp 29 and 30) one of the purpose for developing the 4-pm was to determine the evaluation schemas of the students. This requires the correlation of actual performance using a certain instrument and how the instrument is perceived.

Education is considered by many to be the most important enterprise in the society. At some time and in some way, every citizen is directly involved with education. Because education is such a giant and important enterprise, it is crucial to evaluate its process and products. Students, teachers,administrators and parents all

work hard toward achieving educational goals. Education decisions, therefore should be based on accurate and relevant information.

Conceptions of educational practice, including those practice in evaluation, are not natural entities; they are constructions of the mind. Such constructions are influenced by leading values of the society in which practitioners function. Eisner (1985) held the view that there is an overwhelming tendency to attempt to evaluate the effect of programs on student behaviour, with very little attention paid to the assessment and description of the environment which creates such effects. He further argued that, the situation that is induced by the test administrator, the form the test takes, and the setting in which it is administered tend to elicit not what the students will do in typical situations in their lives, but how they can perform under artificial circumstances.
Gronulund (1985) stated that assigning marks and reporting on students' progress is frustrating, but a necessary aspect of classroom instruction. He was of the view that judgements and reports made by students themselves are a valuable source of information in many areas of learning and development. The self-report methods provide a full understanding of students' needs, problems, adjustments, interests and attitudes, which helps in assessing readness.

The Eisner and Granulund perception of evaluation led the present researcher to the conclusion that there are some components in the 4-pm that are neglected. In the

present study, evaluation was considered as a four dimensional process. Evaluation has the instrumental dimension which deals with what is to be used to evaluate, in this case, the methods of evaluation like mock examinations in schools. Evaluation has also the objectival dimension which concerns with what is to be evaluated for example the students achievement. There are also the source and functional dimensions. The source dimension deals with who should be empowered to carry out the evaluation, for instance teachers. The functional dimension concern itself with the purposes or functions of evaluation.

In this section it is the source dimension which is considered. The sources considered are the teachers, parents, students and Government education officers. In the research, an investigation of the perceived importance of their evaluation was carried out among teachers and students in secondary schools.

3.6.1 STUDENTS (LEARNERS) AS A SOURCE OF EVALUATION

Judgement and reports made by students themselves are a valuable source of information in many areas of learning and development. As Gronulund (1985) indicated, self-report methods provide a fuller understanding of pupil needs, problems, adjustments, interests and attitudes. These reports aid in assessing learning readiness, curriculum planning and students guidance. Although expressed feelings and observable behaviour may not always agree, the self-reports provide valuable evidence

concerning the students' perceptions of themselves and how they want others to view them. The discrepancy is a significant evaluative information.

This research include students as a source of evaluation because of the concern of the effects of evaluation of the students. Gronulund (Ibid,p. 474) stated that:

> The rapidly expanding role of testing in education has also been parallel with mounting criticisms of testing and its possible hazards to individuals and groups.... Probably the greatest public concern has been with the social consequences of testing, that testing may threaten the rights and opportunities of individuals and groups.

This view was supported by Mathews (1985) when he argued that students of all ages submit for reasons of self advancement or because they are forced and have no choice but to comply with whatever system of assessment the society imposes on them. Mathews (Ibid) further sympathised with students as a noticeable group that has got no influence over the control of evaluation but their views were usually filtered through the mouth others.

The resistance offered by students against school conditions under which students in Kenya are supposed to learn with the intention of passing examinations is probably shown through strikes and class boycotts. For instance the Daily Nation Newspaper (1990) reported that students in Kariani Girls' Secondary School deserted school complaining of unbearable conditions, corporal punishment and excessive homework Students in Itirio Mixed High School in Kisii went home after rejecting a new Headmaster. In

Busia District (1990) students of Sigalame High School invaded the Headmaster's house, and forced him out to explain the poor performance of the school in K.C.S.E.

Eisner, Gronulund, Mathews and Newspapers reports on the plight of students in respect to the consequences of evaluation were not supported by research evidence. The present research sought to provide information on this vital issue in education.

The concern by students about evaluation justifies the contention that they should constitute part of the source dimension of evaluation, although in most cases students are treated as products of evaluation. Hogrebe (1985) reported a positive relationship between students' perceptions and academic performance.

3.6.2 TEACHERS AS SOURCE OF EVALUATION

Teachers are charged with the responsibility of providing an enabling environment for the learners to benefit from the school curriculum which represents the needs for the society. As Okatcha (1974) pointed out, the climate for creativity in any society can be created or destroyed in school by those responsible for running the school. What is done or said by teachers may affect the climate for the better or worse. Students tend to develop their abilities better, when they feel a reasonable degree of security and confidence in relation to other student and their teachers particularly.

Pilling and Pringle (1978) reported that the teachers attitudes and beliefs about the level of their pupil's ability affects the pupils' actual attainments. They further argued that the extent to which teachers' behaviour is differentiated may well be affected by the social-class composition of the school population, school organization and the philosophy and attitudes of both the school and the individual teacher. The teachers communicate their expectations to the pupils for example, through looking at the pupils, more praise to high expectation group, less criticism for misbehaving to the high expectation group and leaning towards them.

This implies that teachers may base evaluation of their pupils' future achievements, at least to some extent, on their beliefs about the relationship between certain non-ability factors and academic achievement, for example gender, social class and the child's adaptation to the new situations.

Muya (1991) reported on the evaluation of the english curriculum. In his report teachers criticised the 8-4-4 secondary school English syllabus as being inadequate and failing to expose students to enough literature texts. The Kenya National Examination Council (KNEC) was also criticised by teachers for setting vague examinations. The Muya's report shows the great interest Kenyan teachers have in the evaluation system.

Adongo (1991) in defence for the teachers in respect to being held accountable for poor performance said that

the Ministry should give a proper and comprehensive explanation for the failures. He stated that:

> Teachers are totally dissatisfied with the results and want to know the root of the failure....The teachers would not accept responsibility for the failures since they had been denied a say in matters concerning the examinations. If the ministry denies teachers a chance to speak out on educational issues the education sector would fail badly.

The teachers' concern about the students' performance makes it necessary to investigate how teachers as a source of evaluation are perceived. The concern by teachers on students performance was also reported by Irungu (1991), that apathy griped Murang'a teachers due to the drop in performance of students in the 1990 K.C.P.E. The teachers blamed lack of promotion, local politics, humiliating head count of teachers and interference from Harambee collections that had nothing to do with actual classroom, as factors that led to the drop. This manisfest the fact that teachers are reluctant to accept accountability for students' poor performance because they feel that, it is not them alone who produce these outcomes, that hard to change conditions outside their control may equally explain why students learn or do not learn.

However, the teacher is a key factor in the evaluation of learners' progress. As Gronulund (1985) pointed out, the teacher is the observer and decision maker, whereby he uses evaluation instruments as a means of obtaining more comprehensive, systematic and objective evidence on which to base instructional decisions. Test and other evaluation

procedures designed to measure pupil learning are not intended as replacements for teachers internal observation and judgement. Rather they are intended to complement and supplement the teachers ' informal methods of obtaining measurements about students.

The need to involve teachers in the evaluation process in Kenya was pointed out by Kipkulei (1987) when he asked teachers to suggest how pupils from deverse geographical zones could be selected for higher institutions of learning to ensure fairness. He also requested teachers to indicate to the Nation whether diversity in geographical, social, cultural and economic nature affected schools' performance and how they could be resolved in selecting students for higher education.

Loranger, et al (1982) reported in a research on the "Validity of Teachers evaluation of students", that teachers' judgement were acceptable representation of the students' observable classroom behaviour. In this search, teachers' judgements were compared with systematic observation by 6 observers of the same students. This implies that the teachers' evaluation of students can be considered as a reliable measure of students' characteristics.

Muya (1990) reporting on an inaugural lecture at Kenyatta University delivered by Prof. Sifuna said that teachers had low status in Kenya. The low status are characterized by poor working conditions. Sifuna contented that teachers had lost confidence in themselves. If this is

true, the issue at stake is " Can teachers who have lost confidence in themselves be reliable sources of evaluation?". The findings in the present study were used to indicate whether students and teachers perceive teachers as a dependable sources of evaluation.

3.6.3 PARENTS AS A SOURCE OF EVALUATION

The role of parents in the evaluation of the progress of their children in secondary schools can not be ignored. As Becher et al (1981) put it:

> "There is always an element of anxiety present in the process of parenthood. It is aroused by critical incidents in a child's life. One of the critical incidents is when the child starts school." (p.34).

This anxiety in the parenthood continues throughout the time the child is in school and this makes it necessary to involve parents in evaluating the work of children at school.

Topping (1986) asserted that parental influence on the learner is more profound than that of the school; and there is a sense in which parents acting as educators must be a phenomenon as old as the human culture. He concluded that:

> "In a way, then the development of formalized education in schools served largely to rob parents of a function they had carried out for a Millennia" (p.1).

Baker and Epstein (1981) conducted a survey on parental involvements in education according to the practices and judgements of teachers in Ameria. The research indicated a very positive and widespread use of several parent-oriented teaching strategies. Kasauf (1984)

reported another attitude survey which indicated that 78% of the teachers thought their professional colleagues were doing fine, while only 20% (N= 300) throught parents made a good job of parenting. From Kasauf's study, it can be concluded that teachers are happy with their work but hold low opinion of parents. The present study tried to find out what the situation is in Kenya, because available research has been carried in the America.

Topping (Ibid) strongly held the view that parents need no longer ape the institutions of learning, need not wait for crumbs of wisdom to fall from the teachers table. He called for enhancing the naturalistic skills of parents and taking their views and priorities very much into account.

Davis et al (1972) in Britain found in a longitudinal study of almost 16,000 children that chances of unskilled manual worker's child being a poor reader were six times greater than those of a professional worker's child, and the chances of child being a non-reader proportionally even greater. Although the child's performance may be related to demographic groupings such as social economic status, Bee (1969), Brophy (1970), Maundu (1988) and Clarke-Stewart (1978) conclusively held the view that these variables alone may not predict children's behaviour as well as the parents' actual behaviour does.

Sharrock (1980) supported the issue of parental involvement in school, in a "Search on Home-School Relations," in United Kingdom. The research found evidence

that parental encouragement as causative factor in the children's learning was more profound than intelligence measures (I.Q.), socio-economic status or school variable. Similar findings were reported by Herman and Yeh (1980) in a research on "Some Effects of Parental involvement in schools in California." They demonstrated that parental interest and involvement in school activities was positively related to pupil achievement.

In Kenya the role of parents is quite debatable. Parents have on occasions been condemned. For instance in Machakos, the District Commissioner (1990) described what he termed as bad behaviour of parents who incite children to boycott schools because they do not like a particular teacher. He advised children not to listen to such irresponsible parents. Ngarika (1990) argued that the mass failures of students in 1989 K.S.C.E. was caused by the failure of the parents to provide the required facilities.

The claims about the role of parents in education in Kenya are not based on research evidence. This research investigated whether parents in Kenya are perceived by teachers and students as capable of making meaningful evaluation of students performance with the objective of predicting the students' final achievement in the National Public Examinations.

3.6.4 GOVERNMENT EDUCATION OFFICERS AS SOURCE OF EVALUATION

The government plays a major role in the curriculum. The Government Education Officers (excluding teachers) supervise and monitor the implementation of the Government objectives and recommendations about education in schools. For example according to the Republic of Kenya Development Plan (1984-88), for the government to achieve its educational objectives it was supposed to concentrate on teacher training at all levels of education so as to improve the quality of the teaching force. A similar recommendation had been made in the Kenya's development plan (1974-1983).

Earlier the Development Plan for the period 1974-1978 had recommended that the Examinations Research and Development unit was expected to research in the effect of examinations on what is taught and how it is taught, and restructure examinations so as to promote those aspects of educational process which are compatible with the Nation's objectives of education.

This shows the concern of the government about the evaluation in the education system and therefore the need to investigate how evaluation by the government education officers is perceived by teachers and students in schools.

According to Mathews (1985), the government forms one of the powerful authorities over the evaluation system in education. This was demonstrated in Kenya in 1988 when the Ministry of Education gave an order for teachers not to

administer centralised district mock examinations and asked them to seek permission from the ministry in order to administer such tests to students.

The Ministry of education pointed out that:

> Some districts had set illegal examination councils.... centralised mock examinations were no longer justified in the 8-4-4 system, which will rely on continual assessment tests conducted by individual school..... Centralised district mock examinations ignored the fact that examinations were not the objective of the education system. Examinations denied the teachers the opportunity to have personal touch with students.... District Education Officers have been setting and marking mock examinations, hoping to improve academic performance "(Daily Nation News paper, July 21, 1988.p.1)"

According to Ernest (1986), Shifts in government policies can result in significant changes in evaluation practices in a particular country or region since evaluation always plays a political role in education and acts as the watchdog of the public Welfare. The involvement of the Ministry of education officials was also demonstrated in 1988 when the inspectorate urged the teachers to take a firm grip of 8-4-4, since by their decisions, supervision and evaluation, they showed their ignorance. In 1990 (Daily Nation Newspaper, Monday March, 5, p.2), a District Commissioner requested that teachers who did not perform their work as expected should be reported to his office through the Ministry of Education Officials.

The great interest and involvement by the government in education makes it mandatory to include the agents of the government in the source dimension of evaluation. The direct agents of the government in education are the

ministry of Education Officers; this does not include the teachers.

The literature review in this chapter leaves no doubt that all the components in the 4-pm should be perceived as a unit within a system for successful educational evaluation. It has been clearly indicated that there is a great need for consultation among the various sources of evaluation in order to achieve a high level of need satisfaction in the 4-pm. However, the determination of the components in the 4-pm and their roles without research as the foundation is deemed to fail. Thus the present research provides a good basis for further researches on the determination of the components to be included in a model of evaluation.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 INTRODUCTION

In chapter one the research problem and the hypotheses for investigation were stated. The problem was to investigate the relationship between students' and teachers' perception of evaluation and academic performance in secondary schools in Kenya. This led to the development of the 4 - pm model of evaluation in chapter two to form the conceptual framework for the study. In chapter three a literature review has been carried out so as to clarify the research problem.

The purpose of this chapter is to present a description of the study area, the sample, research design and the procedure that was utilized in the collection of the data.

In this chapter there is also a description of the various statistical techniques that were used to analyze the data collected. The statistical techniques that were used to test the hypotheses that were formulated in this research are also described. The statistical techniques described are : percentage, mean, standard deviation, pearson product moment correlation coefficient (r), chi-square (X^2), F-test and Analysis of variance (ANOVA).

4.1 DESCRIPTION OF THE AREA OF STUDY

The research was conducted involving secondary school students and teachers in Kakamega District of Western

Province of the Republic of Kenya as subjects. This province was used because it is one of the areas in Kenya where there was great concern about academic performance of the students. There was concern about academic performance in western province because formerly the performance was good. The drop may be due to the fact the region has many public assisted schools which have poor learning facilities.

Western province, by 1993, had a total population of 3,035,000 people in 1993, based on the 1979 census. The provincial headquarters are situated in Kakamega.

Kakamega District by 1993 has a total estimated population of 1,168, 998 people in 1993 based on the 1979 census. The research was particularly carried out in Kakamega municipality and Malava (Kabras) division. In 1993 the human population estimate based on the 1979 population census in Kakamega municipality was 74, 142 and Kabras division was 131, 895. The distribution of teachers and students in Kakamega municipality and Kabras division in the year 1992 are presented in Table 4.1.

TABLE 4.1

The distribution of schools, teachers and students in Kakamega District during the year 1992.

DIVISION	NO. OF SCHOOLS	NO. OF TEACHERS	NO. OF STUDENTS
Shinyalu	16	58	3929
Ikolomani	16	236	4245
Khwisero	7	88	1694
Butere	7	106	1867
Mumias	14	186	4246
Lurambi	12	132	2957
Lugari	17	253	4262
Malava (Kabras)	16	195	2660
Kakamega Municipality	6	118	2125
TOTAL	111	1372	27985

Source : Kakamega District Education Office, 1992 Annual Returns

4.2 THE SAMPLE SIZE AND SAMPLING METHODS

The subjects that constituted the sample in the study were drawn from urban and rural schools in Kakamega. The sample consisted of :

i) Secondary school students in Form Two and Four

ii) Secondary school teachers

A school was considered to be in urban area if it was located within Kakamega Municipality; schools located outside Kakamega Municipality were considered as rural schools.

Kakamega District was chosen as the study area because of the reported poor academic performance in Western Province of which Kakamega is one of the Districts. For instance, in 1989, Kenya Secondary Certificate of Education (K.S.C.E.) examination the results showed that there was no

school from western province that ranked among the top 35 schools in the country (Daily Nation, march, 3, 1990 p. 1). However, among the top 200 schools there were 20 schools from western province of which 10 were from Kakamega District; although this was fairly good at provincial level for Kakamega district, it was not at the National level.

Ng'eno (1980) singled out the Western Province as one of the areas with mass failures and where results of schools had been cancelled as a result of cheating. There had been frequent cases of students unrest in Western province who had complained of poor school conditions. This had resulted in a number of strikes, for example students of Shikungulu in Kakamega District deserted school at the instruction of their parents (The Standard, March, 13, 1990 p. 3) and over 500 students of Sigalame High School also deserted school as a result of poor performance in K.S.C.E. (The Standard, March 7, 1990 p. 2). These claims made by parents and students resulting from poor academic performance necessitated the need for an investigation to be carried in one of the districts in western province.

A sample for the study was chosen from cohort of secondary school students because they are directly involved in the preparation for K.S.C.E Examinations; and there is a concern about a decline in academic performance in the K.C.S.E. examination in the province. The teachers have the task of preparing the students for the examinations and the students have to prove their ability

through their performance in examinations. Therefore, teachers also formed part of the sample of the study.

The use of different categories of schools (urban,urban single/mixed, boarding/day and public/private) was adopted so as to provide a representative sample of the school population in kakamega district. Also there were claims that students in these different settings perform differently in academic work.

The debate on the quality of learning in boarding and day schools has been going on for a long time; this debate led to the organization of Harambees to raise funds so as to convert day schools into boarding schools. Since these school settings provide different learning conditions they formed part of the sample for the study.

To obtain the subjects to form the sample for the study, a stratified random method was used. The subjects were first arranged into clusters into urban, rural, boys, girls, mixed, public and private secondary schools. Two hundred and eight students in form two and on hundred and sixty-six from form four were chosen randomly using class lists from thirteen schools; therefore, a total of three hundred and seventy four students were selected for the sample.

Class lists were used to select students that constituted the sample for the study. Students whose registration numbers were odd were chosen from form two. The form four students whose registration numbers were even were chosen as subjects from each schools from which the

students were selected, the schools in the District were grouped as shown in Tables 4.2 and 4.3. The subjects were only chosen from two divisions (Kakamega Municipality and Kabras Division). The schools in Kakamega Municipality provided the urban sample and Kabras Division the rural sample. All schools, six (6) in the Municipality and seven out of sixteen (16) schools in Kabrass division were used to provide the sample.

TABLE 4.2

The distribution of the subjects in the various categories of schools.

LOCATION OF SCHOOL	TYPE OF SCHOOLS	NUMBER OF SCHOOLS	NUMBER OF STUDENTS		
			FORM 2	FORM 4	TOTAL
Urban	Mixed Single	4 2	37 35	44 48	81 83
Rural	Mixed Single	5 2	102 32	40 36	142 68
TOTAL		13	206	168	374

The form two students were included in the study because after one year of secondary education, they were assumed to have just started forming attitudes towards the evaluation process in secondary schools as compared to the form four students. The form four students were involved in this study as subjects because it was assumed that as opposed to the form two students, their attitudes towards the evaluation process in secondary schools would have stablised.

TABLE 4.3

The distribution of students according to the types of schools.

TYPE OF SCHOOL		BOYS	GIRLS	TOTAL
Public	Boarding Day	89 32	33 16	122 48
Public Assisted	Boarding Day	- 85	- 74	- 159
Private	Boarding Day	6 19	7 13	13 32
TOTAL		231	143	374

From the thirteen schools forty teachers were used to constitute of sample.

TABLE 4.4

The Distribution of Teachers and students in Kakamega Municipality and Kabras Division.

DIVISION	NO.OF SCHOOLS	NO. OF STUDENTS			NO. OF TEACHERS
		FORM 2	FORM 4	TOTAL IN SCHOOLS	
Kabras	16	687	547	2660	195
Kakamega Municipality	6	547	485	2125	118
TOTAL	22	1234	1032	4785	313

Source : Kakamega District Education Office, 1992 Annual Report.

A comparison of the information in tables 4.2 and 4.4 shows that the sample used in this study consisted of 374 out of 2266 (16.5%) of the Form II and IV students in Kabras Division and Kakamega Municipality. A total of 40 out 313 (12.8%) of the teachers in Kabras division and Kakamega Municipality participated in this research as subjects.

4.3 PRE-TESTING THE INSTRUMENTS

Instruments pre-testing was carried out before the research was undertaken. The purpose was to :

a) test the research instruments and establish their reliability and validity;

The instruments consisted of four questionnaires for measuring locus of control, perception of public examinations, perception of school environment and perception of evaluation methods. During the process, the researcher discussed the instruments with the teachers in the schools to establish of the validity of the questionnaires. The perception of evaluation methods questionnaires which originally had fifteen (15) sections was reduced to seven sections (see appendix E) after the instrument testing exercise.

The reliability of the research instruments was established using the spilt-half method. The spearman-Brown prophecy formula was used to calculate the reliability of the instruments. The reliability coefficients (r) of the four questionnaire were:

i) Self-evaluation (Locus of control), r = 0.87

ii) Perception of public examinations, r = 0.77

iii) Perception of school environment, r = 0.53

iv) Perception of evaluation methods, r = 0.88

The reliability coefficient values of 0.87 for self-evaluation, 0.77 for perception of public examinations and 0.88 for perception of public evaluation methods were considered to be high and therefore these questionnaires were accepted as reliable instruments. Although the reliability coefficient of 0.53 for the perception of environment was a bit low, it was acceptable since perception of environment was more relative and subjective

than the perception of instrumental dimension of evaluation.

b) give the researcher experience in handling and how to use the instruments before the research in the proposed area of study.

The findings from the instrument testing were used to re-construct the final instruments and selection of subjects to be involved in the research.

The instrument testing was carried out in Vihiga district.

4.4 RESEARCH INSTRUMENTS

In order to measure the variables included in this study, a number of instruments were designed. The instruments were designed to get an indication of the self-perception of the teachers and students in relation to examination, perception of evaluation methods, schools environment and academic performance.

The data necessary for the successful execution of the aims of this investigation were collected using the following methods:

4.4.1 QUESTIONNAIRES

Four questionnaires were finally designed to collect data for the main research. The questionnaires were used to collect information about the background of the subjects, self-perception in relation to public examinations,

perception of school environment and perception of evaluation methods used in secondary schools.

4.4.1.1 BACKGROUND INFORMATION

A questionnaire was designed to collect background information about subjects. The students were required to indicate their gender and type of schools. The type of school included the location of the school (urban and rural), whether the school was single (Boys or Girls schools) or mixed, boarding or day, private or public assisted and their class (Appendix A).

The teachers were required to indicate their gender, teaching experience and type of school.

4.4.1.2 SELF-EVALUATION : SCALE FOR APPROACH TO PROBLEM SOLVING (LOCUS OF CONTROL)

This questionnaire was used to solicit information about the self-perception of the students in relation to their ability to perform tasks when different evaluation methods are used. The questionnaire was similar to the Reid-ware Three-Factor Internal- External scale (1974) and the Rotter Internal - External locus of control.

The Reid-Ware scale is a forced questionnaire composed of factors pertaining to self-control, social systems control and fatalism. The higher the score on this scale, the more external the individual is in a personal belief survey. The Rotter Internal - External locus of control is a forced choice questionnaire. It is scored in the

external direction, that is, the higher the score the more external the individual. The Rotter scale is a social reaction inventory, a questionnaire designed to find out the way in which certain important events in the society affect different people.

The self-perception scale that was used in this study was a combined modification of the Reid-Ware Internal - External and Rotter Internal - External scales. Although these scales were designed to measure self-perception with respect to social and personality issues; the modified scale was used to measure self-perception in relation to academic performance. This type of scale is suitable as a self-perception measure since it is capable of soliciting hidden information from subjects about a certain event in their lives without their direct conscience. This questionnaire had 20 items (Appendix B). The scale was found to have a reliability coefficient of 0.87, using the spilt-half method. For each paire (a or b) of the 20 items, (a) was a measure of internal locus of control and (b) a measure of external locus of control. The internal locus of control was measured by the number of (a)s chosen by each subject.

The scale was scored in the internal direction. That is a high score was an indication of internal locus of control. The minimum score was 0 and maximum score was 20.

4.4.1.3 PERCEPTION OF PUBLIC (NATIONAL) EXAMINATIONS

To get a measure of how public examinations are perceived in secondary schools, a questionnaire was developed to solicit this information. The questionnaire was of Likert type of scale. It was scored in the direction of positive perception of public examinations, the higher the score the more positive perception of the value of public examinations, in secondary schools. The lower the score on the scale, the more negative perception of public examinations. The questionnaire had 20 items. It had a minimum score of and a maximum score of 100 (Appendix C). Using the spilt half method the scale had a reliability coefficient of r = 0.77.

4.4.1.4 PERCEPTION OF SCHOOL ENVIRONMENT

A questionnaire of the Likert type of scale was designed to probe the school environment as perceived with reference to availability of school physical facilities like books, workshops, libraries, laboratories and equipment. The perceived school environment also included the schools interrelationships (Teacher-Teacher, Teacher-Student, and Student - Student) and the relationship between the school and the surrounding community. The questionnaire was scored in the direction of positive perception of the environment, so that a high score implied a good school environment. The questionnaire had 14 items. It had a minimum score of 14 and amaximum score of 70

(Appendix D). Using the split half method, the scale had reliability coefficient of 0.53.

4.4.1.5 PERCEPTION OF EVALUATION METHODS IN SECONDARY SCHOOLS

A questionnaire was developed to elicit information on the perceived importance of different evaluation methods in secondary schools and how these methods affect learning and academic performance. The questionnaire helped to obtain a measure of the perceived importance of the evaluation methods used by teachers (including personality assessment by teachers of their students), parental evaluation of their children and the perceived self-evaluation of the students themselves.

The questionnaire consisted of seven parts. The first five parts consisted of statements for measuring the general importance of evaluation in education. The sixth was used to get information about the perceived importance of source of evaluation by teachers and students. The seventh part was used to get information about the perceived importance of the teachers as asource of evaluation .

The overall questionnaire had a minimum score of 42 and maximum score of 210. The sub-section (parts 1-5) measuring the general importance of evaluation had a minimum score of 30 and maximum score of 150. The sub-section for the source dimension part 6 had a minimum score

of 4 and maximum score of 20. The last part had a minimum score of 8 and maximm score of 40 (Appendix E).

The questionnaire was scored on the Linkert scale. It was scored in the positive direction, so that a high score was an indication of high perceived positive importance of the evaluation. The scale had a reliability coefficient of 0.88, using the spilt half method.

4.4.2 ACADEMIC PERFORMANCE

Since the study was designed to investigate the relationship between the nature of perception (with respect to self, evaluation methods and school environment) and academic performance of the students, it was necessary to arrive at an index for academic performance of each student in the sample. Consequently, for the form Four students mock examinations and performance in the final public examinations (K.S.C.E) were used as measures of academic performance. The students were asked to indicate the mock mean grade on the questionnaires. For the performance in the final public examinations, mean grades were obtained from the school after the results. The two sets of scores were correlated to test for significance. For the Form Two students the average of the mid-year examinations of their Forms one and Two work was used as a measure of academic performance. For Form four students, their mock examinations and their K.S.C.E results at the end of the year were used as indicators of academic performance.

The two sets of academic performance measures (Form II and Form IV) were used to investigate the relationship between academic performance and perception of evaluation methods, locus of control, school environment and level of education.

4.5 STATISTICAL TECHNIQUES

The statistical techniques that were used to analyze the data were : percentage, mean, person product moment correlation coefficient (r), chi-square (X^2), F-test, t-test and analysis of variance (ANOVA).

4.5.1 PERCENTAGE

This was used together with the raw scores in the interpretation of data. The percentages were calculated using the formula.

$$\text{Percentage} = \frac{(P)}{(N)} 100$$

Where p is the number of subjects exhibiting a specified characteristic and N is the total number of subjects under consideration.

4.5.2 MEAN

The mean is one of the measures of central tendency. A measure of central tendency indicates the most representative score of a set of observations. It indicates the centroid or centre of a distribution of scores. The mean is the most commonly used measure of central tendency because it takes into consideration each

score in a distribution, unlike the other measures. For approximately normal distribution, it is the measure of central tendency least subjected to fluctuations. As a result of these considerations the mean was used as opposed to other measure of central tendency. In this study the arithmetic mean was used. It is the algebraic sum of the scores divided by the number of scores or total frequencies.

The mean was calculated using the formula:

$$\bar{X} = \frac{\sum X_i F_i}{\sum F_i}$$

Where

X_i Represents various scores of X

N Is the total number of scores

F_i Represents the various frequencies of X

$\sum F_i$ Is the sum of all the frequencies

That is for a given variable X, with the following values

X_1 , X_2, X_3,.....X_N

The mean (X) is

$$X = \frac{\sum Xi}{N}$$

The mean was used to establish subjects who exhibited specified characteristics from those who did not. For instance, a group of students with a high mean score on the measure of academic index were considered to be

academically superior in relation to those with a low mean score. Subjects with high mean score on self-evaluation scale were considered to be of high self-esteem.

4.5.3 STANDARD DEVIATION

After finding out where the data is concentrated, it was necessary to find out how the scores were dispersed around the mean. The standard deviation is the most useful measure of dispersion because it takes into consideration all the scores in a distribution . It is a measure of how the scores in a distribution deviate from the mean. It gives a very accurate estimate of the parameter as measure of dispersion, this characteristic renders the standard deviation value a very dependable one for accurate interpretation of data. The data used was from interval scale measurement. This made the standard deviation adaptable as measure of dispersion in relation to other measures of dispersion. For a given sample, and variable X, with the following values

X_1, X_2, X_3, ...X_N with corresponding frequencies of f_1, f_2, f_3, ...f_n the standard deviation was computed using the formula.

$$S = \frac{\sqrt{\sum (X_i - \overline{X})^2 f_i}}{\sum f_i}$$

Where X is the mean for the variable X

Σf_i is the sum of the frequencies

The positive root of the equation was taken to be the value of the standard deviation. It was used together with the mean to distinguish subjects who had a certain characteristic from those who did not have it. Subjects whose scores were above one standard deviation from the mean on a given characteristic (e.g. self-evaluation or perception of evaluation methods) were considered as having positive percept towards evaluation as opposed to those whose scores were below one standard deviation from the mean.

4.5.4 PEARSON PRODUCT MOMENT CORRELATION COEFFICIENT (r)

The pearson product moment correlation coefficient is a numerical expression of both the direction and magnitude of the relationship between two given variables. There are three broad classifications of the magnitudes of correlation coefficient.

Namely:

i) Positive correlation coefficient; in this case , when the values of the one of the variables increases the other variable also increases, or if one decreases the other also decreases.

ii) Zero correlation coefficients : this is when there is no association between two variables. A change in one variable is not related to the change in the other.

iii) Negative correlation coefficients : in this case as one of the variables increases the other decreases; and reverse relationship between the two variables is also true. Therefore, the r value ranges from -1 through 0.00 to +1, where -1 is a perfect negative correlation, +1 a perfect positive correlation and 0.00 is no correlation at all.

The pearson product moment correlation coefficient is suitable for use with ratio, interval or ordinal scales of measurement. The values of r do not in any way suggest a cause and effect relationship but only a measure of linear relationship. The distribution of the two variables affect the value of r. If for instance, one of the variables is highly positively skewed, and the other is negatively skewed, the maximum value can only be attained if the distribution of the two variables are identical. The value of r can be lowered if two variables under consideration are related to a third variable but in the opposite directions; that is, when one is related to the third variable in the positive direction and the other in the negative direction. The following values were used as guide in the interpretation of the relationship between two variables:

0.80 - 1.00 Very high correlation

0.60 - 0.79 high correlation

0.40 - 0.59 moderate correlation

0.20 - 0.39 slight correlation

0.01 - 0.19 very weak correlation

In the interpretation of the correlation coefficient, r^2, is the proportion of the total variances that can be accounted for by the linear regression of one of the variables on the other. The value 1 - r^2 is the proportion of the total sum of variances that cannot be accounted for or that is independent of the linear regression of one of the variables on the other.

It should be noted that as the scores deviate more and more from the regression straight line or line of best-fit, the correlation coefficient decreases towards r = .00. Once the relationship between two variables is determined, the values of the variables may be predicted from the corresponding values of the other variable. For a research sample, when there are two variables X and Y under consideration the pearson product moment correlation was computed using the formula:

$$r_{xy} = \frac{N\Sigma Xy - (\Sigma X)(\Sigma y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Where

N is the total number of subjects

ΣXY is the sum of the product of the two variables X and Y.

ΣX is the sum of the values of X

ΣY is the sum of the values of Y

ΣX^2 is the sum of the square of the values of X

$\sum Y^2$ is the sum of the square of the values of Y.

Where the Y variable is dependent on X.

The pearson product moment correlation was used because it has the advantage of using data that is not ranked, which was the case in this study. It has the advantage of being able to indicate whether there is a linear relationship between two variables under consideration. It also provided a shorthand expression for summarizing the direction and degree of relationship between two variables.

In this study the Pearson Product Moment

Correlation was used to establish, whether a relationship existed between two given variables, and if there was any, whether relationship differed significantly from zero. To test whether the value of r differs significantly from zero, a student t-test derived from r was used. The formula for the convertion of r value tot is

$$t=r\sqrt{\frac{N-2}{1-r^2}}$$

Where t = students t-value

r = correlation coefficient

N = number of subjects (or pairs) with N - 2 degrees of freedom.

4.5.5 CHI-SQUARE (X^2)

The chi-square test (X^2) is the most popular non-parametric statistical test. For its use, the data has to be independent of each other which was the case in this study. It can be used to estimate the extend to which assumptions of the null hypothesis stated are justified. It was convenient to use the X^2 for data that was in discrete categories in frequency form. The major advantages are that it is relatively easy to understand, fairly easy to calculate and applicable to an extremely wide range of research situations; and it is the only one frequently used for analyzing frequency data arranged in categories at the nominal level of measurement. In view of these advantages, the X^2 was used in testing the formulated hypotheses in this study.

In this study, the data was organised in n by m contingency tables where n refers to rows and m to columns.

The cells in the table can be named A, B, C, D, F, and G as shown table 4.5

TABLE 4.5

An Illustration of a 2 x 3 Chi_Square Design

	COLUMN 1	COLUMN 2	COLUMN 3	TOTAL
ROW 1	A	B	C	A + B +C
ROW 2	D	F	G	D + F +G
TOTAL	A + D	B + F	C + G	N

E is not used in the table because it represents the expected frequencies (E).

The chi-square was computed using the formula

$$X^2 = \frac{(A - Ea)^2}{Ea} + \frac{(B - Eb)^2}{Eb} + \ldots\ldots + \frac{(G + Eg)}{Eg}$$

Where A, B, C, D, F and G are the total frequencies in the various cells;

N = A + B + C + D + G + F.

Ea = the expected frequency for cell A, the same applies to the other cells. The formula can be modified according to number of rows and columns.

The letters A,B,C,D,F G represents the frequencies in the corresponding cells in the table. The total frequencies for the rows is represented by A + B + C and D + F + G. The value A + D, B + F and C + G represent the column total frequencies.

The X^2 was subjected to a test of significance at a given confidence level with appropriate degree (s) of freedom. For acceptance of null hypothesis, the computed value must be less than the tabulated value, otherwise it was rejected. The degree (s) of freedom is calculated using the expression df = (c -1) (r -1) Where c is the number of columns, r is the number of rows and df is the degree of freedom.

4.5.6 F - TEST

The F - test was used to test the hypothesis about the population variances of two independent samples. For the use of F test in this case, there were two samples of n_1

from population 1 and another sample n_2 from population 2. The ratio of the variance of two samples is the value of F. That is, F was computed using the formula:

$$F = \frac{S^{12}}{S^{2}\ 2}$$

Where S_1^2 is the variance of the sample of population 1 with the larger variance,

Where S^2_2 is the variance of the sample population 2 with the smaller variance.

The degree freedom (df = $f(V_1, V_2)$ as calculated using the formula df = $F(n_1 - 1, n_2 - 1)$.

Where F-ratio was also used to test for statistical significance in the ANOVA. In this it was computed using the formula:

$$F - ratio = \frac{\text{Treatment mean score}}{\text{Within subject mean square.}}$$

The advantage of using the F - test in this study is that it used all the numerical information collected from the subjects and it also takes into consideration the population variances of two independent samples.

4.5.7 t - TEST

The t - test is a powerful technique for testing the difference between two means from either independent groups or two related groups.

The t test takes advantage of all information presented by interval measurement to test difference between the means of two groups, by considering the variances of the two groups as the denominator. When the

sample size is large (N > 25), the violations of the assumptions of normality and equal population variance have little effect on t (Matheson, 1978, p. 327). These advantages of a t -test made it necessary to use it in this study.

The calculated value of t was compared with the critical values. If the obtained t value is equal to or greater than the critical value, the H_0 was rejected. In this study the t test was use to find out if there was significant difference between the means of independent variables for a given sample of subjects.

4.5.8 THE ANALYSIS OF VARIANCE (ANOVA)

The analysis of variance (ANOVA) is suitable for a design that include more than two groups of subjects, one dependent variable and more than one independent variable and there is an interval or greater level of measurement of the dependent variable. F test is the critical statistic of an analysis of variable.

Variance in independent measure of scores arises from three sources; namely: subject factor, environment factor, and experimental factor. The subject factors or individual differences that cannot be controlled are termed as error. The environmental effects due to the manipulation of independent variable are defined as treatment effects, and any other uncontrolled environmental effects not due to the independent variable is assumed to due to error.

In testing for statistical significance in this study, the ratio comparing the variance due to the independent variable (s) with the error variance were obtained. The obtained ratio was checked in a table of critical values. The test can be used with independent groups or related groups designs, and with factorial or repeated measure factorial designs. In this study the ANOVA was used with independent groups. In practice Anova distribution is relatively unaffected by moderate departures from population distribution normality.

In ANOVA because of random error due to several possible sources including individual differeces, there is variance in the scores within each of the groups. This within groups variance is expected to be similar for all groups due to the random assignment procedure. The between groups variance is expected to increase after treatment while the within group variance remains relatively stable; in this case null hypothesis (H_0) is that the between groups variance remains unchanged after the treatment. To calculate the between groups and within group variance, the sum of squares associated with total set of scores, the between group means, and the within groups scores were obtained first.

Within the subjects ss = (total ss) - (treatment ss).

The between and within group variances are equal to the between and within group sum of squares divided by the appropriate degrees of freedom (df). The between and within variances are also called mean squares. The between groups

variance (treatment mean square) are an estimate of the variance due to random error plus variance due to the treatment. Within group variance (within subject mean square) are an estimate of the variance due to random error. If there is no treatment effect, then the F ration should be close to 1.0.

The ANOVA was used to find out whether there are significant differences in the self-perception, perception of various evaluation methods and perception of school environment by teachers and students. To use the ANOVA the means for the various characteristics among students and teachers were computed.

The advantages of using ANOVA in this study are that it is able to utilize all numerical information in the interval measurement scale. It also has advantages of accommodating two or more kinds of independent measures from each subject, or two or more kinds of independent measures of one kind of each subject.

SUMMARY OF THE STATISTICAL TECHNIQUES

	AIM	STATISTICAL TECHNIQUES
1.	Subjective interpretation of data obtained	Row scores and percentages
2.	Distinguishing subjects with external self-perception from those with internal self-perception	Mean and Standard deviation
3.	Distinguish subjects with positive percept of evaluation methods from those with negative percept of evaluation methods	Mean and Standard deviation
4.	Distinguish subjects with above average academic performance from those with below average performance.	Mean and Standard deviation
5.	To determine the relationship between self-perception and academic performance.	Pearson Product Moment Correlation Coefficient
6.	To determine the relationship that exists, if any between self-perception and perception of evaluation methods.	Pearson Product Moment Correlation Coefficient
7.	To determine the relationship that exists, if any, between perception of evaluation methods and academic performance.	Pearson Product Moment Correlation Coefficient
8.	To determine if there is a significant relationship in the nature of the students' locus of control and academic performance.	Chi-Square
9.	To determine whether there is a significant difference in the nature of students' perception of evaluation methods.	Chi-Square
10.	To determine if there is a significant difference in self-perception of students according to gender and environment.	Analysis of Variance

11.	To determine whether there is a significant difference in the perception of evaluation methods	Analysis of Variance
12.	To determine whether there is a significant difference in the perception of evaluation methods.	T-test
13.	To determine whether there is a significant difference among teachers and students in the:	
a)	Perception of parental evaluation	T-test
b)	Students' evaluation	T-test
c)	Perception of teachers comments, and	F-test
d)	Government Education Officers' perception. teachers.	

CHAPTER FIVE

DATA ANALYSIS, RESULTS AND DISCUSSION

5.0 INTRODUCTION

In this chapter, the data analysis and the results of the study are presented. The data was obtained from students and teachers in Kakamega Municipality and Kabras Division of Western province of Kenya. The analysis and results focused on the following:

i) Locus of control in relation to school activities.

ii) Perception of school environment and

iii) Perception of tetrahedral pyramidal model of evaluation (4 -pm)

The locus of control scale consisted of 20 items which were scored in the internal direction (appendix B). A high score was an indication of an internal locus of control. The departure from the mean was used to classify the individuals as having internal, neutral and external locus of control. Individuals whose scores were below one standard deviation below the sample mean were classified as having an External locus of control. Individuals whose scores were between one standard deviation below the sample mean and one standard deviation above the sample mean were considered to be neutral. Those whose scores were above one standard deviation of the sample mean were rated as having an internal locus of control (table 5.1).

TABLE 5.1

Mean scores of Students on the Locus of Control Questionnaire.

Class	Type of Locus of Control			
	Internal	Neutral	External	N
IV	12.5	53.9	33.6	152
II	20.9	62.8	16.3	192
Total	17.2	58.9	23.9	344

The sample mean for the students was 15.45 and for the teachers was 15.97. Of the 40 teachers who were given the questionnaire on locus of control, five did not respond to all the items and therefore, they were not included in the final data analysis. Thirty students out of the 374 did not respond to all the items and they were also excluded from the final data analysis.

The perception of school environment scale had 14 items (Appendix D). It was of the Likert type. The maximum score was 70. The scale was scored in the positive direction, so that a high score implied a high positive perception of the school environment.

The individuals were classified as having negative or neutral or positive perception of the school environment according to the following criteria.

i) Negative, if the score was below one standard deviation below the sample mean.

ii) Neutral if the score was between one standard deviation below the sample mean and one standard deviation above the sample mean.

iii) Positive, if the score was above one standard deviation above the sample mean.

The mean score for the students was 38.75 and for the teachers was 30.71.

Ten teachers and thirty students were not included in the final analysis because they did not respond to all the items on the scale.

The perception of the 4 - pm was divided into:

i) Perception of instrumental dimension; which included the perception of public examination (Pe), Teachers comments (Tc), class assignment (Ca), class projects (Cp), Mock tests (Mt), End of term tests(Et) and Periodic tests (Pt).

This dimension therefore had seven sub-scales.

Each sub-scale had a maximum score of 25. The public examination sub-scale (Appendix C) was multiplied by a factor of 0.2 so as to make it have the same spread like the other six sub-scales (Appendix E items 1 to 5).

The criteria for classifying individuals into having negative, neutral or positive perception was based on the departure from the sample mean as explained for locus of control. The various mean scores for students and teachers are presented in table 5.2.

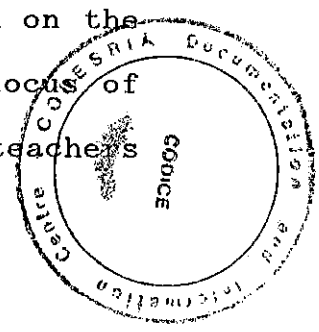


TABLE 5.2

The sample mean scores on the IDE Questionnaire

	IDE SUB-SCALE						N
	Tc	Ca	Cp	Mt	Et	Pt	
Students	16.00	18.53	17.53	18.03	18.83	19.26	349
Teachers	17.58	19.09	16.97	20.11	19.90	18.31	30

Ten teachers and twenty five students who did not complete filling the questionnaire for this sub-scale were not included in the final data analysis.

The perception of Public examinations scale had twenty (20) items and it was of the Likert type (Appendix C). The scale was scored in the positive direction, the maximum score was 100. Individuals were classified into the following categories of perceiving public examinations:

a) Negative, if the score was below one standard deviation below the mean.

b) Neutral, if the score was between one standard deviation below and above the sample mean.

c) Positive, if the score was one standard deviation above the sample mean.

Out of 374 students, 28 did not respond to all the items on the scale, and therefore not included in the final data analysis.

Out of 40 teachers, 10 did not respond to all items on the scores, the mean score for the students was 94.10 and the mean score for the teachers was 64.81.

ii) The perception of Functional Dimension (FDE): This included Eight sub-scales according to the elements considered. These were : monitoring of academic progress (AP), Students difficulty analysis (Da), Prediction of performance in Public examinations (Pp), Career choosing (Cc), Students motivation (Sm), Fitting in society while still in school (Fw), Obedience analysis (Oa), and Fitting in society after school (Fa).

The maximum score for each element was 5. The sub-scales were scored in the positive direction. The criteria for classifying individuals as positive, neutral or negative was based on the mid value of 3.

Those whose scores were below three were regarded as negative, those who scored 3 were neutral and those above 3 were positive.

The mean scores for students and teachers are presented in table 5.3.

TABLE 5.3

The Mean Scores on the FDE Sub-Scales

	FDE SUB-SCALES								N
	Ap	Da	Pp	Cc	Sm	Fw	Oa	Fa	
STUDENTS	4.31	3.89	3.56	3.37	4.27	2.77	2.41	3.53	344
TEACHERS	4.49	3.84	3.84	3.16	3.84	2.43	1.97	1.92	30

Thirty students and ten teachers did not respond to all the items on the FDE scales, and therefore not included in the computation of the mean scores.

iii) Perception of the source dimension (SDE):

In the source dimension, the elements that constituted the sub-scales were parents (P), Teachers (T), Students (S) and Government officers (G).

The mid value of 3 was used as a criteria for classifying individuals as having a negative, neutral or positive perception of the SDE. Twenty four students and ten teachers who did not respond to all the items in this section were not included in calculation of the mean scores.

The mean scores on the SDE sub-scales are presented in table 5.4.

TABLE 5.4

The Mean Scores on the SDE Questionnaire.

	SDE SUB-SCALES				N
	Teacher 4.3	Parents	Government Officers	Students 4.13	
STUDENTS	4.26	3.98	3.17	3.94	350
TEACHERS		3.23	2.49		30

iv) Academic performance:

Public examination and mock tests were used as indices for academic performance for the Form IV students. The mean grade from each student was obtained from the school after the 1993 K.C.S.E. results had been released by the Ministry of education. The mean grade was scored on a 12 point scale ; the mean grade for the 1993 provincial mock for western province was obtained from the school after the results were ready. The mock and K.C.S.E. mean grades were scored on 12 points scale.

The teachers rating of the Form II students from mid year tests in Forms I and II were used as a measure of academic performance. The individual student mean grade was the mean of the two means from mid year test.

v) Age differences:

The students' ages were considered in the following categories, 22-21, 20-19, 18-17, and 16-15.

5.1 STUDENTS AND TEACHERS' LOCUS OF CONTROL AND PERCEPTION OF SCHOOL ENVIRONMENT

The results presented in table 5.5 indicate a higher tendency among students and teachers to have a neutral locus of control as opposed to internal and external locus of control.

TABLE 5.5

The classification of the Students' and teachers' locus of control.

	TYPE OF LOCUS OF CONTROL			N
CLASS	INTERNAL %	NEUTRAL %	EXTERNAL %	
IV	12.5	53.9	33.6	152
II	20.9	62.8	16.3	192
TEACHERS	8.6	71.4	20.0	30
TOTAL	17.2	58.9	23.9	343

Data analysis was done to find out if gender, type of school, students' age, students' level of education, teaching experience and training have a significant relationship with the perception of school environment and locus of control. The results are presented in tables 5.6 to 5.25. The analysis mainly included testing of the null hypothesis 1 to 13.

Hypothesis 1:

The type of school has got no significant influence on the

(i) locus of control of the students

(ii) students' perception of the school environment.

TABLE 5.6

The Mean Scores of Students on the Locus of Control and Perception of Environment Scales.

SCALE	TYPE OF SCHOOL		
	PRIVATE	PUBLIC	PUBLIC ASSISTED
Locus of control	$\bar{X}$ =52.30 sd=9.80	$\bar{X}$ =45.43 sd=11.52	$\bar{X}$ =59.09 sd=7.39
Perception of school Environment	$\bar{X}$ =36.70 sd= 8.12	$\bar{X}$ =38.73 sd=7.86	$\bar{X}$ =39.97 sd= 6.45

The results in table 5.6 shows that the students in public assisted schools have got a higher positive perception of their school environment ($\bar{X}$ = 39.97, N = 30) than those public and private schools.

ANOVA was carried out and the results are presented in table 5.7.

TABLE 5.7

A Two-way ANOVA for the influence of type of school on locus of control and perception of school environment among students.

Source of Variation	Sum of Squares	Degrees of Freedom (df)	Mean Square(MS)	Calculated F Value (Fcal)	F values from Tables (F Table)
Lc-Se Variation (R)	8569.80	1	8569.80	1215.5*	3.91
Type of School (C)	1725.23	2	862.62	122.36*	3.06
Interaction (RC)	13128.67	2	6564.34	931.11*	3.06
Within Cell (W)	1226.10	174	7.05		
TOTAL	24649.80	179			

* Significant at $\alpha = 0.05$

The null hypothesis was rejected at $\alpha = 0.05$ (Table 5.7)

Hypothesis 2:

There is no significant difference between the locus of control and perception of school environment among students.

The null hypothesis was rejected (Table 5.7).

The results in table 5.7 show that there was variation emanating from different types of schools and from differences in the perception of school environment and locus of control among students.

The scores on the locus of control scale are higher (internally perceived) than on the perception of environment (negatively perceived).

Hypothesis 3:

The student's age has got no significant influence on locus of control and perception of school environment.

Four group means, two row means and eight cell means for age and locus of control (see Table 5.8) were examined using a two-way ANOVA

TABLE 5.8

The mean scores on the locus of control and perception of school environment in different age categories.

	AGE	22-21	20-19	18-17	16-15
Locus of Control	Mean	51.70	53.57	58.87	51.59
	sd	13.71	10.32	7.32	10.54
Perception of School Environment	Mean	35.35	42.67	40.57	35.39
	sd	8.52	10.14	7.78	10.49

n = 30

Table 5.9 presents results of the Two-Way ANOVA showing the influence of students' age on the perception of school environment and locus of control.

TABLE 5.9

A Two-Way ANOVA for the influence of Age on locus of control and perception of School Environment.

Source of Variation	Sum of Square (ss)	df	MS	FCal.	F. Tables
LC-SE Variation(R)	13121.22	1	13121.22	133.01*	3.89
Age (C)	1654.15	3	552.38	5.59*	2.65
Interaction (RC)	493.22	3	164.41	1.67	2.65
Within Cells (N)	21196.67	215	98.59		
TOTAL	36465.26	222			

* Significant at $\alpha = 0.05$

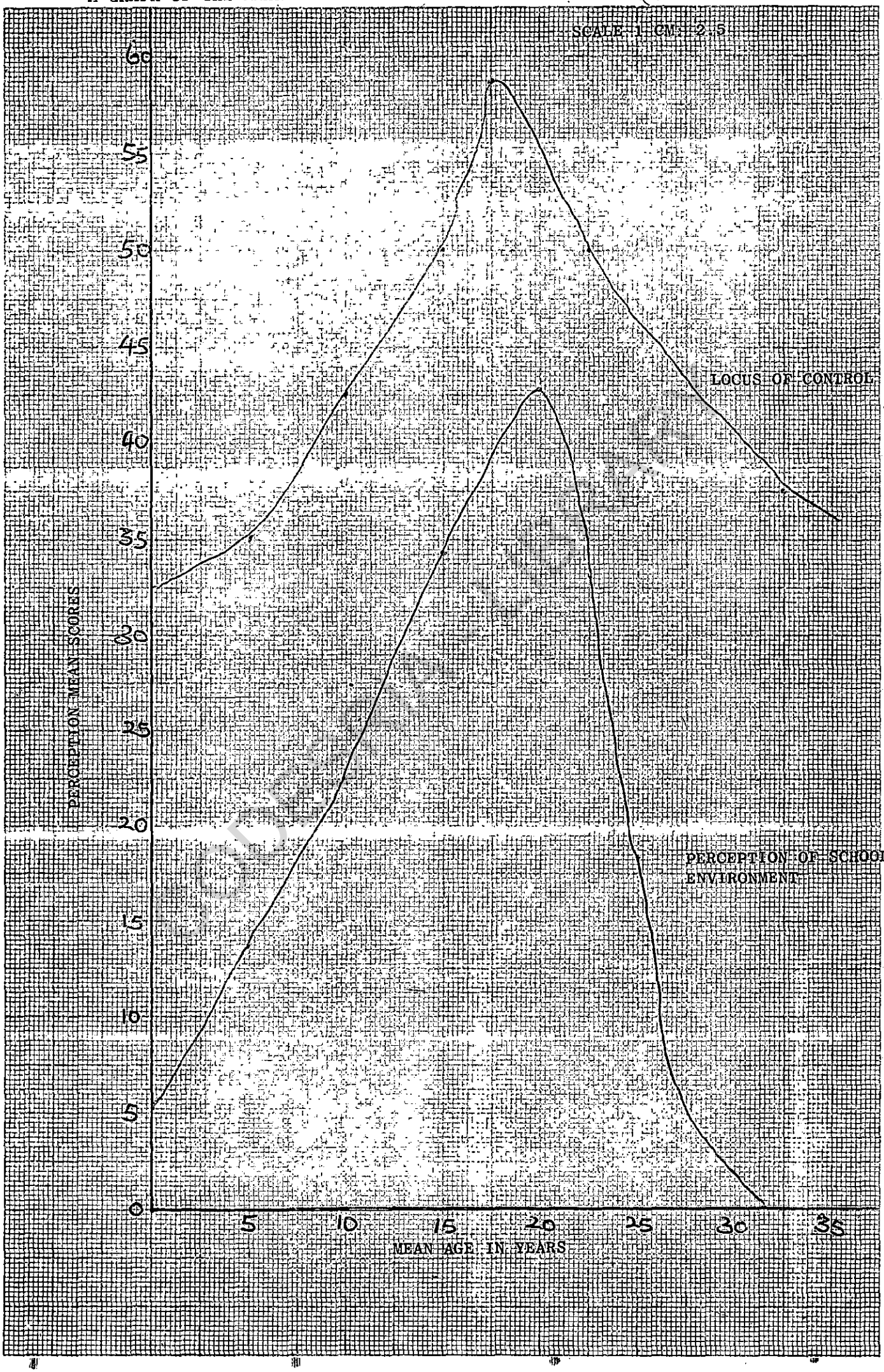
The results in Table 5.9 show that statistical significance reached at the level of $\alpha = 0.05$. Therefore, the null hypothesis that age has got no significant effect on the perception of school environment and locus of control was rejected.

The variation of locus of control and perception of school environment due to age is illustrated in figure 5.1

The results show that locus of control increases internally with age and reaches a pick and then increases externally. The change in the perception of school environment follows the same pattern, it increases positively and then increases negatively with age.

FIGURE 5.1

A GRAPH OF THE MEANS OF PERCEPTION SCORES AGAINST STUDENTS AGE



Hypothesis 4:

The type of school (Boarding, Day) has got no significant effect on the locus of control and perception of school environment among students.

To test this hypothesis for significance, two group means, two row means and four cell means for type of school (Boarding,Day) and perception of school environment, and locus of control (Table 5.10) were examined using two-way ANOVA.

TABLE 5.10

The Mean Scores of Perception of School Environment (SE) and Locus of Control (LC) by students in Boarding and Day Schools.

		Boarding	Day
Locus of Control	Mean	59.36	51.04
	sd	7.22	9.05
Perception of School Environment	Mean	41.69	40.71
	sd	8.20	9.79

n = 42

TABLE 5.11

The two-way ANOVA table for the effect of type of school (Boarding, Day) on the Perception of School Environment and Locus of Control.

Source of Variation	SS	df	MS	FCal.	F Tables
LC-SE Variation (R)	7926.891	1	7926.89	2311.05*	3.91
Type of School (C)	902.69	1	902.69	263.17*	3.91
Interaction (RC)	12358.44	1	1358.44	396.05*	3.91
Within Cells (W)	561.77	164	3.43		
TOTAL	21749.791	167			

* Significant at α 0.05

The results in table 5.11 show that the F-Values are significant at α = 0.05. In this case, the null hypothesis that type of school (Boarding, Day) has got no significant influence on the perception of school environment and locus of control was rejected. The students in Boarding schools have a higher internal locus of control than students in Day schools. The results also show that students in boarding schools have a more positive perception of the school environment.

HYPOTHESIS 5

Gender has got no significant influence on the locus of control and perception of school environment among students.

The variability of the scores of students on the locus of control and the perception of school environment scales was examined using Two-Way ANOVA. The means for locus of control and perception of school environment of boys were compared with those of girls (Table 5.12)

TABLE 5.12

The mean scores on the locus of control scale and perception of school environment scale by Male and Female students.

		MALE	FEMALE
Locus of Control	Mean	59.33	56.02
	N	45	45
Perception of School of Environment	Mean	41.20	39.33
	N	45	45

TABLE 5.13

ANOVA for the influence of students Gender on the Perception of School Environment and Locus of Control.

SOURCE	SS	df	MS	F VALUES CALCULATED	TABLE
SE-LC Variation (R)	13641.60	1	13641.60	33.34*	3.91
Gender (C)	301.60	1	301.60	0.74	3.91
Interaction (RC)	23.48	1	23.48	0.06	3.91
Within Cells (C)	72014.18	176	409.17		
TOTAL (T)	85980.86	179			

* Significant at $\alpha = 0.05$

The findings in Table 5.13 show that the F-value due to variation in the column factor (Gender) is less than the critical value. Therefore the null hypothesis that gender has got no significant effect on the locus of control was accepted. Thus, there are no gender difference in the perception of school of environment and locus of control among students in secondary schools.

HYPOTHESIS 6

The level of the students' education has got no significant influence on their locus of control and the perception of school environment.

The Mean Scores of students on the locus of control scale and perception of school environment scales, shown in table 5.14, were compared using Two-Way ANOVA.

TABLE 5.14

Mean Score of Students on Locus of Control and Perception of School Environment

		FORM II	FORMIV	TOTAL
Locus of Control	Mean	56.53	59.27	57.9
	sd	9.46	6.91	8.35
	N	45	45	90
Perception of School Environment	Mean	39.04	41.22	40.13
	sd	6.91	8.27	7.65
	N	45	45	90
TOTAL	mean	47.79	50.24	49.02
	sd	12.05	11.82	11.96
	N	90	90	180

TABLE 5.15

A Two-Way ANOVA for the Influence of Level of Education on the Perception of School of Environment and Locus of Control.

SOURCE	SS	df	MS	F CAL.	F. TABLE
LC-SE Variation (R)	14204.45	1	14204.45	244.29*	3.91
Level of Education (C)	271.34	1	271.34	4.28*	3.91
Interaction (RC)	3.47	1	3.47	0.05	3.91
Within Cells (w)	11145.69	176	63.33		
TOTAL (T)	25624.95	179			

Significant at $\alpha = 0.05$

The findings in table 5.15 show that the F-Values corresponding to the variation due to level of education and LC-SE were greater than the critical values. Therefore, the null hypothesis that the level of the students' education has got no significant influence on the perception of school environment and locus of control was rejected. However, there was no interaction between level of education and LC-SE variation.

The Form IV students had a more internal locus of control and positive perception of school environment than the Form II students (Table 5.14)

HYPOTHESIS 7

The type of school (urban, rural) has got no significant influence on the locus of control and perception of school environment.

TABLE 5.16

The Mean Scores on Locus of Control and Perception of School Environment by Students in Urban and Rural Schools

		URBAN SCHOOLS	RURAL SCHOOLS	TOTAL
School Environment	Mean	58.82	50.07	54.44
	sd	7.27	9.66	9.58
	N	45	45	90
Locus of Control	Mean	42.51	38.53	47.51
	sd	8.49	9.13	11.56
	N	45	45	180
TOTAL	sd	11.36	11.00	11.56
	N	90	90	180

The variability of locus of control and perception of school environment among students in urban and rural schools (Table 5.16) was examined using Two-Way ANOVA (Table 5.17)

TABLE 5.17

A Two-Way ANOVA for the Influence of Type of School (Urban, Rural) on the perception of school Environment and Locus of Control.

SOURCE	SS	df	MS	F. CAL.	T. TABLE S
LC-SE Variation (R)	8722.27	1	8722.27	115.63*	3.91
School type (C)	1824.05	1	1824.05	24.18*	3.91
Interaction (RC)	256.81	1	256.81	3.40	3.91
Within Cells (C)	13275.82	176	75.43		
TOTAL	24078.95	179			

* Significant at α = 0.05

From the findings in Table 5.17 the null hypothesis that type of school, (urban, rural) has got no significant influence on the perception of school environment was rejected. The students in urban schools have a more internal locus of control and more positive perception of school environment than students in rural schools (Table 5.16). There is no interaction between school type (urban, rural) and Lc-Se variation.

HYPOTHESIS 8

There is no significant difference between students and teachers in their locus of control and perception of school environment.

The hypothesis was tested for significance by comparing the mean scores of students and teachers on the

locus of control and perception of school environment (Table 5.18) using Two-Way ANOVA (Table 5.19).

TABLE 5.18

The Mean Score on Locus of Control and Perception of School Environment by Teachers and Students

		Locus of Control	School Environment	
Teachers	Mean	55.10	40.77	47.93
	sd	7.83	7.60	10.52
	n	30	30	60
Students	Mean	58.20	39.93	49.07
	sd	8.90	7.84	12.41
	n	30	30	60
TOTAL	Mean	56.65	40.35	48.5
	sd	8.46	7.67	11.47
	n	60	60	120

TABLE 5.19

A Two-Way ANOVA Table for the Teachers' and Students Perception of School Environment and Locus of Control.

Source	SS	df	Ms	Fcal	FTables
TS-SS Percept (R)	38.53	1	38.53	0.59	3.94
LC-SE Variation (C0	7980.70	1	7970.70	122.65*	3.94
Interaction (RC)	116.04	1	116.04	1.79	3.94
Within Cell (C)	7538.73	116	64.99		
Total	15674	119			

* Significant at α = 0.05

The results in Table 5.19 show that the calculated F value from rows does not exceed the critical value. Therefore, the null hypothesis that there is no significant difference between students and teachers in their perception of school environment and locus of control was accepted.

HYPOTHESIS 9

There is no significant difference between the scores on the locus of control scale and the perception of school environment by teachers and students.

The findings in Table 5.19 show that the F value from columns exceeded the critical value. Therefore the null hypothesis (9) was rejected. This means that the students personal initiative is perceived more positively by both teachers and students than the school environment.

HYPOTHESIS 10

The level of the teachers training has got no significant influence on the teachers' locus of control and the perception of school environment.

Table 5.20 shows the mean scores and standard deviations of teachers scores on perception of school environment scale and locus of control scale, when the teachers were grouped according to their level of training.

TABLE 5.20

The Mean score of locus of control and perception of school environment by teachers according to the level of training.

		Locus of control	School Environment	Total
Untrained	Mean s.d	53.56 6.58	44.00 7.78	48.78 8.69
Diploma teacher	Mean s.d	58.67 6.77	38.08 8.39	48.48 12.89
Graduate Teacher	Mean s.d	55.85 8.25	40.86 6.44	40.07 10.51
Total	Mean s.d	56.24 7.49	40.71 7.63	48.36 10.84

n = 12

The variability in the perception of school environment and locus of control according to the teachers' level of training was examined using a Two-Way ANOVA presented in Table 5.21. The results show that the calculated F value for level of training as a source of variation did not exceed the critical value, therefore, the null hypothesis was accepted. Thus the level of teacher training does not influence the perception of school environment and locus of control.

TABLE 5.21

A Two-Way ANOVA for the influence of Teachers' Level of training on the perception of school Environment and Locus of Control.

Source of Variation	df	SS	Ms	FCal.	F Tables
Level of Training (R)	2	5.35	2.68	0.05	3.14
LC-SE Variation (C)	1	4154.68	4154.68	74.55*	3.99
Interaction (RC)	2	312.70	156.35	2.81	3.14
Within Cells (W)	63	3511.21	55.73		
Total	68	7983.94			

* Significant at α = 0.05

HYPOTHESIS 11

Gender among teachers has got no significant influence on their locus of control and the perception of school environment.

The means and standard deviations of teachers' perception of school environment and locus of control scores are presented in Table 5.22.

TABLE 5.22

The Means of Teachers' Scores on the perception of school environment and locus of control.

		Locus of Control	School Environment	Total
Male Teachers	Means	54.77 7.68	41.17 7.66	47.67 10.23
Female Teachers	Means	59.31 7.22	39.54 7.03	49.42 12.42
TOTAL	Means	56.46 7.73	40.59 7.39	48.31 10.96

n = 18

The variability of the perception of school environment and locus of control by teachers according to gender was examined using a Two-Way ANOVA, the results are presented in Table 5.23.

TABLE 5.23

A Two-Way ANOVA for the influence of teachers' gender on the perception of school environment and locus of control.

Source	SS	df	Ms	Fcal.	F. Tables
Genger (r)	50.83	1	5.83	9.09*	3.98
LC-SE Variation (C)	4525.68	1	4525.68	80.87*	3.98
Interaction (RC)	139.57	1	139.57	2.49	3.98
Within Cells (W)	3805.20	68	55.96		
Total (T)	8521.28	71			

* Significant at $\alpha = 0.05$

KEY R - Rows
c - columns
RC - Interaction between columns and Rows
LC-SE - Locus of Control and School Environment

The findings in Table 5.23 show that the calculated value of F from the rows exceeded the critical value at $\alpha = 0.05$. Therefore the null hypothesis was rejected.

The female teachers had a more internal locus of control and higher positive perception of the school environment than male teachers (Table 5.22)

HYPOTHESIS 12

The teaching experience has got no significant influence on the teachers' locus of control and perception of school environment.

The means and standard deviations of the teachers' score on the locus of control scale and perception of school environment are presented in Table 5.24.

TABLE 5.24

The Means of the teachers' scores on the Locus of Control and perception of School Environment.

Teaching Experience		Locus of Control	School Environment	Total
Below 2 Years	Mean s	55.44 7.92	40.44 8.13	47.94 10.96
2-5 Years	Mean s	52.29 7.36	41.27 7.44	46.59 9.18
Above 5 Years	Mean s	60.71 5.36	40.20 6.86	50.10 12.07
Total	Mean s	56.24 7.61	40.67 7.20	48.25 10.75

n = 13

A Two-Way ANOVA was carried out to test the null hypothesis 12, the results are presented in Table 5.25.

TABLE 5.25

A Two-Way ANOVA Table for the influence of teaching experience on the perception of school environment and Locus of Control.

Source	SS	df	MS	Fcal.	F Tables
teaching Experience (R)	181.58	2	90.79	1.79	3.14
LC-SE Variation (C)	4606.77	1	4606.77	91.06*	3.98
Interaction (RC)	332.41	2	166.21	3.29*	3.14
Within Cells (W)	3541.49	70	50.59		
Total (T)	8662.25	75			

* Significant at $\alpha = 0.05$

The findings in Table 5.25 show that the F Values for columns and interaction effects exceeded the critical value but not the F Value for the rows. Therefore, the null hypothesis was accepted at $\alpha = 0.05$ level of confidence. It can therefore be concluded that the teachers' teaching experience has got no significant effect on the perception of school environment and locus of control.

HYPOTHESIS 13

There is no significant difference in nature of locus of control (External, Neutral, Internal) between Form II and Form IV Students.

The hypothesis was tested using the chi-square formula and was rejected at $P \geq 0.001$, $X^2 = 15.27$, X^2 crit = 13.82, df = 2.

The results showed that most of the students had a neutral locus of control (58.9%, N = 343) and the Form IV students had a more internal locus of control than the Form II students (Table 6.1).

The testing of hypothesis 1-13 revealed that there are significant differences among students of different ages in their perception of school environment and their locus of control (Tables 5.8 and 5.9, Figure 5.1). The variation of locus of control and perception of school environment among students in secondary schools in relation to the age of the students can be described using a curvilinear relationship. The two characteristics increase up to a certain pick and then drop, forming a normal curve graphical structure. The changes in the locus of control and perception of school environment might be due to continuous exposure to stress from work and unconducive learning conditions. This might be the explanation for complains by students in some schools as reported by Rugoiyo (1990) about forced repetition, Wairithi (1990) about striking students, The Standard Newspaper (March 13, 1990 P.3) about students deserting a school.

There are significant differences in the perception of school environment and locus of control between students in boarding and day schools. The students in boarding school have a more internal locus of control and positive perception of school environment than the students in day schools. This shows that good positive school environment (Tables 5.10 and 5.11) enhances an internal locus of

control. This implies that students in boarding schools are provided with a conducive learning atmosphere than those in day schools. Students in urban schools have a more positive perception of school environment than those in rural schools. They are also more internal than the rural students in terms of locus of control.

Gender was found not to have a significant effect on the perception of school environment and locus of control (Tables 5.12 and 5.13). This is a similar finding to Mwamwenda's (1987) among pupils in Botswana in regard to their sex and self-concept. The lack of significant difference in the perception of school environment and locus of control might be due to invariations of expectations and success desire under different school environments.

The level of students' education has a significant effect on the perception of school environment and locus of control. The Form IV students have a more internal locus of control and positive perception of school environment than Form II students, (Table 5.14 and 5.15). The differences can be attributed to educational effect and exposure which has enhanced confidence in the Form IV students as compared to Form II students.

There are significant differences in the perception of school environment and locus of control between students in urban and rural schools. Students in urban schools have a more positive perception of school environment than those

in rural schools. They are also more internal than rural students in terms of locus of control.

The data analysis and results concerning the differences in the locus of control and perception of school environment indicated that there are significant differences among the three types of schools (private, public and public assisted). The students in public assisted schools had the highest mean score on the internal locus of control scale and the highest mean score on the perception of the positive school environment. The students in public assisted schools had a more internal locus of control than the students in the other two types of schools. The more willingness by students in public assisted schools to take casual responsibility and positive perception of school environment might be due to the less strict school administration that may exist in these schools that allows students some freedom to manipulate school environment. A visit to the schools showed that there was a closer monitoring of students' activities in public schools than in public assisted schools. This implies that close monitoring of students' behaviour does not enhance internal locus of control.

It was also found that there was a significant difference between the internal locus of control scores and the scores on the positive perception of the school environment. This implies that the school environment does not enhance ability of students in schools to take on casual responsibility of school activities.

The students in urban schools have a more internal locus of control and positive perception of school environment than students in rural schools (Tables 5.16 and 5.17). The difference might be due to difference in urban and rural conditions in allowing the students to manipulate the environment. In urban environment the parental and community control of students is different from the rural environment. In rural areas the community is more concerned about students' conduct than in urban areas.

There are no significant differences among teachers in the perception of school environment and locus of control, due to level of training and teaching experience. However, gender among teachers has a significant effect on the perception of school environment and locus of control and positive perception of school environment. The female teachers had more internal locus of control than male teachers, (Tables 5.20,5.21, 5.22, 5.23, 5.24 and 5.25). The higher confidence among female teachers might be due to cultural changes in the society. Teaching in secondary schools was mainly dominated by male teachers in Kakamega District. The female teachers in the secondary schools, thus, have a feeling of belonging to a more special social class, compared to the male teachers. This is in accordance with Burns (1979), that, a feeling of belonging to a superior special class enhances internal locus of control. This is also in support of Wekesa's (1993) findings that visibility instructional leadership of female Head teachers

was higher than that of male Head Teachers in Western Province.

The results showed that there were no significant differences between students and teachers in their perception of school environment and locus of control (Tables 5.18 and 5.19). The similarity between the students and teachers might be due to modelling effect in which the teachers tend to influence the feelings of the students and the students attempt to imitate the characteristics and behaviour of teachers.

5.2.0 STUDENTS AND TEACHERS PERCEPTION OF THE 4 - PM OF EVALUATION

After presenting results on the perception of school environment and locus of control, what follows are the results of the students' and teachers' perception of the 4 - pm of evaluation. The 4 - pm is sub-divided into the source, objectival instrumental and functional dimensions.

5.2.1 PERCEPTION OF THE INSTRUMENTAL DIMENSION OF EVALUATION (IDE)

The objective was to find if gender, type of school, students age, level of education, teachers' teaching experience and training have a significant influence on the methods of evaluation used in schools, which are the elements in the IDE.

The methods of evaluation investigated were public National Examinations (Pe), Teachers' comments on students'

activities (TC), Class Assignments (ca), Class projects (CP), Mock Tests (MT), Termly Tests (ET) and periodic Tests (Pt). The results are presented in tables 5.26 - 5.52.

The results of how the students perceived the six types of education methods are presented in Table 5.26.

Table 5.26

The Percentages (%) showing how students perceived the six elements in the instrumental Dimension

Method of Evaluation	Class Form	Nature of Perception			N
		Negative	Neutral	Positive	
Tc	II IV	13.5 7.6	67.9 66.5	18.6 25.9	169 180
Ca	II IV	15.8 16.5	71.1 64.6	13.1 18.9	191 158
Cp	II IV	24.2 20.4	66.9 65.1	8.9 14.5	177 172
Mt	II IV	23.9 18.9	60.6 53.3	14.1 27.7	190 159
Et	II IV	19.6 15.3	65.2 69.4	15.2 15.3	179 170
Pt	II IV	22.7 14.3	61.9 65.6	15.4 20.1	194 155

The results in Table 5.26 show that most of the students were undecided about the role of the six methods evaluation in education. The corresponding results from the teachers are shown in Table 5.27.

Table 5.27

The Percentages of how Teachers perceived the IDE.

Method of Evaluation	Nature of Perception			N
	Negative	Neutral	Positive	
Tc	6.7	73.3	20.0	30
Ca	10.0	66.7	23.3	30
Cp	16.7	73.3	10.0	30
Mt	13.3	63.3	23.4	30
Et	10	80	10.0	30
Pt	20	50	30.0	30

The majority of teachers were also not quite sure about the role of the various methods of evaluation in education.

The results of how students perceived the role of public examinations in education are presented in Table 5.28.

Table 5.28

The percentages of how the students perceived Public Examinations.

	Nature of Perception by Percentage (%)			N
Class	Negative	Neutral	Positive	
IV II	12.0 12.2	70.6 75.1	17.4 12.7	167 189
TOTAL	12.1	73.0	14.9	356

The results in Table 5.28 indicate that most of the students were neutral as far as the importance of public

examinations in education was concerned. This implies that most of the students are not certain about the purpose of public examinations in education.

After collecting the data, hypothesis 14 to 32 were tested for significance concerning the perception of the instrumental dimension of evaluation.

HYPOTHESIS 14

There is no significant difference in the nature of the perception of public Examinations between Form II and Form IV students.

The null hypothesis was tested for significance using a chi-square formula.

The Null hypothesis was rejected at $P \geq 0.05$, $X^2 = 1.55$. df = 2, X^2 crit =1.39.

The findings in table 5.28 show that most of the students (73.0%, N = 356) have a neutral percept of the Public Examination. However, the Form IV students have a more positive percept of the role of Public Examinations in education than the Form II students.

Hypothesis 15

There is no significant difference in the nature of the students perception of the teachers comments.

The Null hypothesis was rejected at $P > 0.10$, $X^2 = 4.60$, df = 2, X^2 crit = 4.60.

From Table 5.26 it can be observed that most of the students had a neutral perception (67.2%, N = 326) of the importance of the teachers comments. The Form II students

had a more positive perception of the importance of the teachers' comments than the form IV students.

HYPOTHESIS 16

There is no significant difference in attitudes of students towards class assignments.

The null hypothesis was rejected at P $\geq$ 0.05, X^2 = 2.58, df = 2, X^2 crit = 2.37.

The findings in Table 5.26 show that most of the students had a neutral perception (68.1%, N = 348) of the importance of class assignments. The Form IV students had a more positive percept than the Form II students.

HYPOTHESIS 17

There is no significant difference in the nature of perception of the importance of class projects by students.

The null hypothesis was rejected at P $\geq$ 0.30, X^2 = 2.58, df = X^2 crit 2.41.

The findings in table 15.26 show that most of the students had a neutral perception of the importance of class projects, with the form IV students having a more positive perception than the form II students.

HYPOTHESIS 18

There is no significant difference in the nature of perception (negative, neutral, positive) of the importance of mock tests by the students.

The null hypothesis was rejected at P $\geq$ 0.02, X^2 = 7.94, df = 2, X^2 = 7.82. Most students (57.3%, N = 347) had a neutral perception of the importance of mock tests, with

the form IV students having a more positive perception than the Form II students (Table 5.26).

HYPOTHESIS 19

There is no significant difference in the nature of perception (Negative, neutral, positive) of the importance of termly tests by the students.

The null hypothesis was accepted at $P > 0.50$, $X^2 = 1.15$, df = 2, $X^2crit = 1.39$. However, most of the students had a neutral perception of the importance termly tests (Table 5.26).

HYPOTHESIS 20

There is no significant difference in the nature of perception (negative, neutral, positive) of the periodic tests by students.

The null hypothesis was rejected at $P \geq 0.20$, $X^2 = 4.45$, df = 2, $X^2crit = 3.22$.

Most of the students (63.5%, N = 348) perceived the importance of periodic tests neutrally, but the Form IV students perceived it more positively than the Form II students (Table 5.26).

HYPOTHESIS 21

The method of evaluation and type of school have got no significant influence on the perception of evaluation by students.

Presented in Table 5.29 are summary statistics of a Two-Way Analysis of variance for the effect of method of evaluation and type of school (Boarding, Day) on the perception of evaluation.

TABLE 5.29

A Two - Way ANOVA for the influence of method of evaluation and type of school (Boarding, Day) on the perception of IDE.

Source	SS	df	MS	FCal	F Tables
Type of School (R)	177.51	1	177.51	8.99*	3.85
Method of Evaluation (C)	323.97	6	54.00	2.73*	2.12
Interaction (RC)	279.77	6	46.63	2.36*	2.123
Within Cells (W)	8573.31	434	19.75		
Total	9354.56	447			

* Significant at α = 0.05

The findings in Table 5.29 show that the F values exceed the critical value at α = 0.05. In this respect, the null hypothesis that the type of school (Boarding, Day) and method of evaluation have got no significant influence on the perception of evaluation was rejected, and there is interaction between type of school and method of evaluation. The results in Table 5.29 show that students in the Boarding schools have a higher positive perception of evaluation than those in day schools. The different methods of evaluation are perceived differently by students in the following order in the positive direction:

Mock tests, Termly tests, Class assignments, Teachers' comments, Public examinations, Class projects and periodic tests.

HYPOTHESIS 22

The type of school (urban - Rural environment) has got no significant influence on the perception of IDE among students.

The variability in the perception of evaluation due to type of school was examined using a two-way ANOVA and the results are presented in table 5.30.

TABLE 5.30

A Two-Way ANOVA for the influence of Type of School (Urban-Rural Environment) on the Perception of IDE.

Source of Variation	SS	df	Ms	F cal	F Tables
Type of School (R)	429.91	1	429.91	28.60*	3.84
Method of Evaluation (C)	1269.01	6	211.50	14.07*	2.09
Interaction (RC)	63.00	6	10.5	0.70	2.09
Within Cells (W)	18727.62	1246	1503		
TOTAL (T)	20489.54	1259			

* Significant at α = 0.05

The findings in Table 5.30 show that the F value due to type of school (urban, rural) exceeded the critical value at α = 0.05. Therefore, the null hypothesis, that type of school has got no significant effect on the perception of evaluation was rejected, but there was no significant interaction effects between type of school and method of evaluation. It can therefore be stated that there

are differences in the perception of evaluation between students in urban and rural schools. The students in urban schools have got a more positive perception than those in rural schools.

HYPOTHESIS 23

Gender among students has got no significant influence on the perception of evaluation.

The variability in the perception of evaluation due to gender was examined using a two-way ANOVA and the results are presented in Table 5.31.

TABLE 5.31

A Tow-Way ANOVA Table showing the influence of Gender on the Perception of IDE.

Source of Variation	SS	df	Ms	FCal	F Tables
Gender (R)	59.89	1	59.89	3.85*	3.85
Method of Evaluation (C)	996.79	6	166.13	10.68*	2.10
Interaction (RC)	82.02	6	13.67	0.88	2.10
Within Cells (W)	13292.36	854	15.56		
TOTAL	14431.06	867			

* significant at $\alpha = 0.05$

The results in table 5.31 show that the calculated F is greater than the table value for the influence of gender on the perception of evaluation, therefore, the null

hypothesis was rejected. The male students have a more positive perception of evaluation than the female students.

HYPOTHESIS 24

The level of education among students in secondary schools has got no significant influence on the perception of IDE.

The variation in the perception of IDE due to the level of education of students was examined using a Two-Way ANOVA and the results are presented in Table 5.31

TABLE 5.32

A Two-Way ANOVA for the influence of students' level of education on the perception of IDE.

Source of Variation	SS	df	Ms	Fcal	F Tables
Level of Education (R)	0.05	1	0.05	0.0034	3.85
Evaluation Method (C)	1005.52	6	167.59	11.35*	2.10
Interaction (RC)	58.54	6	9.76	0.66	2.10
Within Cells (W)	12602.23	854	14.76		
Total	13666.34	867			

* Significant at α = 0.05

The findings in Table 5.32 show that the calculated F Value from variation due to level of education did not exceed the critical value. Therefore, the null hypothesis was accepted, this means there is no significant difference

between the Form II and Form IV students in the perception IDE.

HYPOTHESIS 25

The type of school (mixed, single) does not significantly influence the perception of IDE by students.

The variation in the perception of evaluation due to type of school was examined using Two-Way ANOVA, the results are presented in table 5.33. The results show that there was no significant variation in the perception of evaluation due to school type (mixed, single), therefore the null hypothesis was accepted. However, there is a significant interaction between type of school (mixed, single) and the methods of evaluation in the perception of evaluation.

TABLE 5.33

A Two Way ANOVA for the influence of Type of School (mixed, single) on the perception of IDE by Students.

Source of Variation	SS	df	Ms	Fcal	F Tables
¦Type of School (R)	38.64	1	38.64	2.64	3.84
Method of Evaluation (C)	1356.36	6	226.06	25.43*	2.09
Interaction (RC)	372.02	6	62.00	4.23*	2.09
Within Cells (C)	1888.13	1289	14.65		
TOTAL	20655.15	1302			

* significant at $\alpha = 0.05$

HYPOTHESIS 26

The students' age has got no significant influence on the perception of IDE.

The variation in the perception of IDE due to the students' age was examined using a Two-Way ANOVA and the results are presented in Table 5.34. The results show that at α = 0.05 level of confidence, the F value due to students' age does not exceed the critical value, therefore, the null hypothesis was accepted. This means that the age of students in secondary schools does not affect the perception of IDE.

TABLE 5.34

A Two-Way ANOVA Table showing the effect of students' age on the perception of IDE.

Source of Variation	SS	df	Ms	Fcal	F Tables
Age (R)	45.00	3	15.00	1.03	2.62
Method of Evaluation (C)	648.08	6	108.01	7.43*	2.12
Interaction (RC)	529.63	18	29.42	2.02*	1.60
Within Cells (W)	8544.36	588	14.53		
TOTAL	9767.07	615			

* Significant at α = 0.05

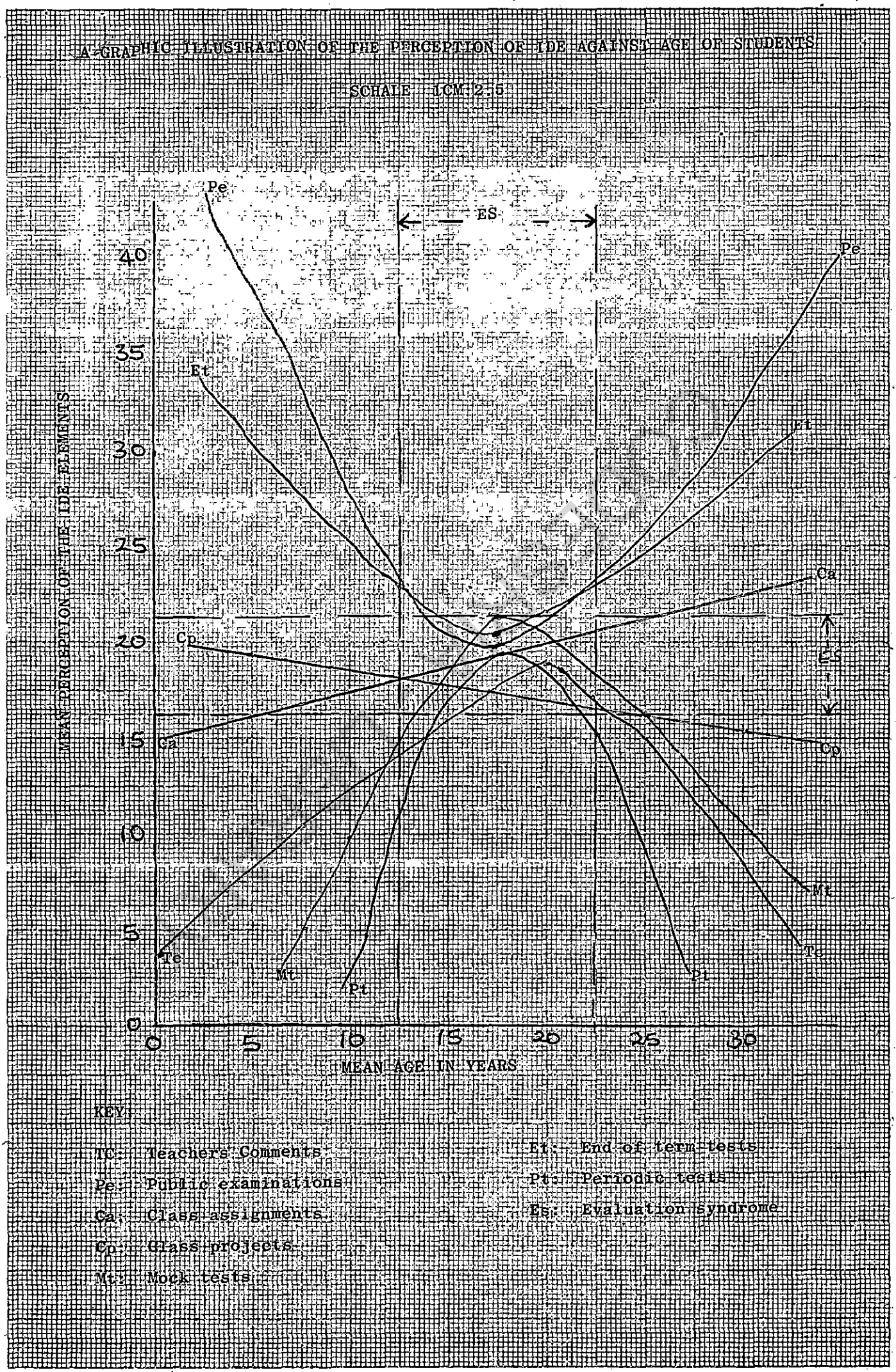
Curves showing how the perception of the seven Evaluation methods varies with the students' age are presented in figure 5.2.

An observation of figure 5.2 shows that the positive perception of:

a) Mock tests, periodic tests, and teachers' comments increase with age, reaches a pick and then decline with age, they form symptotic curves.

A GRAPHIC ILLUSTRATION OF THE PERCEPTION OF IDE AGAINST AGE OF STUDENTS

SCHALE 1CM:2.5



KEY:

TC: Teachers' Comments

Pe: Public examinations

Ca: Class assignments

Co: Class projects

Mt: Mock tests

Et: End of term tests

Pt: Periodic tests

Es: Evaluation syndrome

b) Termly tests and public examinations starts by decreasing as age increases and then starts increasing.

c) Class assignments increase as age increases, decrease with decrease in age.

d) Class project decreases with increase in age.

The curves therefore, show that it is only the positive perception of the termly tests and public examinations which initially decreases and then increases with age.

Further observation of figure 5.2 reveals that between the ages of 13 and 23 years, the instruments initially perceived as positive decrease in their importance and those that were perceived to be less positive increase in their importance except for class assignments. This phenomenon is referred to as the Evaluation Syndrome (ES). This is a complex state in which the students are not sure about the appropriate elements in the IDE. The occurrence of ES can be as a result of the stress experienced by students during evaluation.

The similarity and differences in the changes in the perception of IDE can be explained by the function it plays in the education of individuals.

Mock tests are only done by Form Four students who are relatively older than the Form two students, therefore the young students have not yet had exposure to mock examinations. As students stay in school the concept of the

importance of mock tests is introduced and is welcome. The teachers are very critical in marking mock tests, and this may explain the decrease in the positive perception.

The tradition among teachers of punishing students who perform poorly in periodic tests, class assignments may explain the variation in perception of these elements of the IDE with increase in age.

The fear for punishment from teachers due to poor performance in termly tests and public examinations does not arise among many students. The teachers do not punish students who perform poorly when the two methods of evaluation are used. This may be the reason for increased positive perception of these elements in the instrumental dimension of evaluation.

The high interaction of the perception of the pubic examinations with the other elements in the IDE (fig.52) except with the class projects, is an indication that students feel that the role played by public examinations can be achieved through the use of the other methods of evaluation used in schools.

HYPOTHESIS 27

The type of school (public, Public Assisted, Private) does not significantly influence the perception of IDE among students.

The variation in the perception of IDE due to type of school (public, public assisted, private) was examined using a Two-Way ANOVA and the results are presented in

Table 5.35. The results show that the F Value was significant at $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that type school has got no significant influence on the perception of IDE was rejected.

The students in private schools had the highest positive perception of IDE.

TABLE 5.35

A Two-Way ANOVA for the Influence of Type of School (Public, Public Assisted, Private) on the Perception of IDE by Students.

Source of Variation	SS	df	Ms	Fcal	F Tables
Type of School (R)	391.90	2	195.95	12.95*	3.00
Method of Evaluation (C)	856.34	6	142.72	9.43*	2.10
Interaction (RC)	193.13	12	16.09	1.06	1.70
Within Cells (W)	12389.03	819	15.13		
TOTAL	13830.40	839			

* Significant at $\alpha = 0.05$

HYPOTHESIS 28

There is no significant difference in nature (Negative, Neutral, Positive) of the teachers' perception of IDE .

The teachers' perceptions of IDE were classified as negative, neutral or positive and the percentage of teachers who were in each category are presented in Table 5.36.

TABLE 5.36

The Percentages (%) Showing the Nature (negative, Neutral, Positive) of the Teachers' perception of IDE.

METHOD OF EVALUATION	NATURE OF TEACHERS' PERCEPTION			N
	NEGATIVE	NEUTRAL	POSITIVE	
Tc	6.7	73.3	20.0	30
Ca	10.0	66.7	23.3	30
Cp	16.7	73.3	10.0	30
Mt	13.3	63.3	23.4	30
Et	10.0	80.0	10.0	30
Pt	10.0	50.0	30.0	30
TOTAL	12.8	67.8	19.4	

The null Hypothesis was tested for significance using a chi-square and was rejected at $P \geq 0.05$, $X^2 = 10.20$, df = 10, X^2 crit = 9.34.

The findings show that most of the teachers (67.8%) had a neutral perception of the IDE. The results are similar to those obtained when the nature of the students perception was considered. According to the teachers the following is the order of importance in the positive direction:- Periodic tests, Mock tests, Class assignments, Teachers' comments, termly tests and class projects.

An investigation in the difference between male and female teachers in the perception of public examination led to the acceptance of the null hypothesis that:- "There is no significant differences between male and female teachers in their perception of the public examinations." at α = 0.05, t = 0.08, df = 34, t Crit = 2.04, F(11,23) = 1.05, F Crit = 2.26.

However, the male teachers had higher mean scores ($\bar{x}$ = 65.46) than the female teachers ($\bar{x}$ = 63.50).

With regard to variability in the teachers' perception of public examinations due to the teaching experience, the results are summarized in a One-Way ANOVA, Table 5.37.

TABLE 5.37

A One-Way ANOVA Table for the influence of the Teachers' Experience on the Perception of Public National Examinations.

Source of Variation	SS	df	Ms	Fcal.	F Tables
Between Groups	305.68	2	152.84	1.19	3.26
Within Groups	4627.29	36	128.54		
TOTAL	4932.97	38			

The findings in Table 5.37 show that the F value did not exceed the critical value at α = 0.05 level of confidence. Therefore the null hypothesis that teaching experience has got no significant influence on the perception of public examinations was accepted.

HYPOTHESIS 29

Gender among teachers has got no significant effect on the perception of IDE.

The variation in the perception of evaluation among teachers due to gender was examined using a Two-Way ANOVA and the results are presented in Table 5.38. The null hypothesis was accepted at α = 0.05 level of confidence. Therefore, there are no significant differences in the perception of IDE among secondary school teachers due to gender.

TABLE 5.38

A Two-Way ANOVA Table Showing the Effect of Gender on the Perception of IDE By Teachers.

Source of Variation	SS	df	Ms	Fcal	F Tables
Gender (R)	41.08	1	41.08	2.44	3.89
Method of Evaluation (C)	211.32	5	42.26	2.51*	2.26
Interaction (RC)	12.45	5	2.45	0.15	2.26
Within Cells (C)	3421.21	203	16.85		
TOTAL	3686.06	214			

* Significant at $\alpha = 0.05$

HYPOTHESIS 30

The teachers' level of training has got no significant influence on the perception of IDE.

The variation in the perception of evaluation among teachers due to level of training was examined using a Two-Way ANOVA and the results are presented in Table 5.39. The findings show that the F Value due to variation from level of training exceeded the critical value at $\alpha = 0.05$ level of confidence. Therefore, the null hypothesis was rejected. The graduate teachers have the least positive perception of evaluation when compared to untrained and Diploma teachers.

TABLE 5.39

A Two-Way ANOVA Table for the influence of Teachers' Level of Training on the Perception of IDE.

Source of Variation	SS	df	Ms	FCal.	FTables
Method of Evaluation (R)	223.12	5	44.62	2.73*	2.26
Level of Training (C)	208.05	2	104.03	6.37*	3.04
Interaction (CR)	91.79	10	9.18	0.56	1.87
Within Cells (W)	3226.36	197	16.34		
TOTAL	3749.32	214			

* Significant α = 0.05

HYPOTHESIS 31

Teachers' Teaching Experience has got no significant influence on the perception of IDE.

TABLE 5.40

A Two-Way ANOVA Table Showing the Influence of Teaching Experience on the Perception of IDE.

Source of Variation	SS	df	Ms	FCal	FTables
Method of Evaluation (R)	245.32	5	49.06	2.98*	2.26
Teaching experience (C)	35.49	2	17.75	1.08	3.04
Interaction (RC)	191.74	10	19.17	1.16	1,87
Within Cells (W)	1333.93	216	16.47		
TOTAL	1806.48	233			

* Significant at α = 0.05

The findings in Table 5.40 show that the F value for the influence of teaching experience did not exceed the critical value, therefore, the null hypothesis was accepted at the $\alpha = 0.05$ level of confidence.

HYPOTHESIS 32

There is no significant difference between students and teachers in their perception of IDE.

The difference in the perception of evaluation between students teachers was examined using a Two-Way ANOVA and the results are presented in Table 5.41.

TABLE 5.41

A Two-Way ANOVA Table Showing how Students and Teachers' Perceive IDE.

Source of Variation	SS	df	Ms	Fcal	F.Table
Ts-SS Variation (R)	128.16	1	128.16	9.93*	3.86
Evaluation (C)	186.33	6	31.06	1.92	2.12
Interaction (RC)	200.17	6	33.36	2.06	2.12
Within Cells (W)	6566	406	16.17		
TOTAL	7080.66	419			

* Significant at $\alpha = 0.05$

Key: TS-SS=Differences in the variation between teachers and students
R = Rows
C = Columns

The findings in Table 5.41 show that the F Value for the variation emanating from the rows exceeded the critical

value at α = 0.05 level of confidence. Therefore, the null hypothesis was rejected. This implies that there are differences between students and teachers in their perception of IDE. The students have a more positive perception of evaluation than teachers.

After the analysis of data and hypothesis testing on the perception of the IDE the findings indicated that there are significant differences between students in Boarding and Day Schools in their perception of the instrumental dimension of evaluation. The students in boarding schools have a more positive perception of the instrumental dimension of evaluation than those if day schools, (Table 5.29). The differences among the students might be due to the high variation of interaction among the students in day schools as opposed to the restricted interaction in boarding schools during the period when schools are in session.

There was a significant difference in the perception of the various components of the instrumental dimension of evaluation. The seven components were perceived in the following order of importance: Mock examinations, termly tests, Class assignments, Public national examinations, periodic tests, teachers comments and lastly projects. According to the perception of the importance of the components by teachers, the best four components in order of importance are : Periodic tests, termly tests, class assignments and mock tests. The striking finding was that both teachers and students do not rate the public

examinations very highly. When the responses of the students and teachers were combined, the best four components in order of importance were termly tests, mock tests, periodic test and class assignments. The findings confirm the fact that students and teachers value the teachers as sources of evaluation when compared to any other source. This supports Kasouf's (1984) findings.

The study found that there was a significant difference between students in urban and rural schools in their perception of the instrumental dimension of evaluation. The urban students had a more positive perception of the instrumental dimension than the rural students (Table 5.30). The difference can be attributed to the difference in the learning environment in urban schools and rural schools. The learning atmosphere in urban schools is superior compared to that in rural schools. The differences in the perception of the instrumental dimension of evaluation due to gender may be attributed to cultural influence. The African traditional culture in Western Province did not encourage females to compete publicly with males as the case is in the educational evaluation.

The research found that there was no significant variation in the perception of the instrumental dimension of evaluation due to level of education of the students, age of the students, mixed-single differences in schools, teachers' teaching experience and gender among teachers'. However, there was a significant difference in the teachers' level of training (Tables 5.39). Interestingly

the graduate teachers had the lowest mean score on the positive perception of the instrumental dimension of evaluation. The untrained teachers had the highest positive mean score.

The lack of significant differences among students in the perception of the instrumental dimension of evaluation due to level of education, age and mixed/single school differences (Table 5.32 - 5.34) can be attributed to indiscriminative effects and objectives of evaluation on learners regardless of age and level of education. The high negative perception of the instrumental dimension of evaluation by trained teachers as compared to untrained teachers reflect their ability to detect deficiencies in evaluation as compared to untrained teachers.

The study found that the students had a more positive perception of the instrumental dimension of evaluation than the teachers. This implied that the students had more confidence in the evaluation system than the teachers. This might be due to the fact that students have a hope that their future lies in passing examinations while some of the teachers might have been frustrated by examinations.

The study also found that between the ages of 13 and 23 (figure 5.2) students experience an evaluation syndrome. A condition on the appropriate elements in IDE and their functions.

5.2.2 THE STUDENTS' AND TEACHERS' PERCEPTION OF THE FUNCTIONAL DIMENSION OF EVALUATION (FDE)

After data analysis and hypothesis testing concerning the instrumental dimensions, the research considered the data on the perception of FDE. The objective was to find out how the components of FDE are perceived by teachers and students. There was also an investigation of the differences in the perception of the components due to students' level of education, gender, type of school, students' age, teachers level of training and experience.

The components of the functional dimension of evaluation that were considered were:-

a) Monitoring of Academic progress (A);

b) Students' difficulty analysis (DA);

c) Predication of performance in public national examinations (PP);

d) Students career choosing (cc);

e) Students' motivation (SM);

f) Helping students to fit in the society while still in school (FW);

g) Students' obedience analysis (Oa);

h) Helping students to fit in society after graduating from school (FA).

The results are presented in Table 5.42 - 5.55.

TABLE 5.42

The percentages showing how the students perceived the FDE.

Purpose of Valuation	Form	Nature of Perception			N
		Negative	Neutral	Positive	
Ap	II IV	6.8 5.1	6.8 5.1	86.4 93.0	196 158
Da	II IV	11.6 11.7	18.9 15.3	69.5 73.0	190 154
Pp	II IV	21.7 20.7	23.9 17.2	54.4 62.1	180 164
Cc	II IV	28.9 26.5	21.1 15.6	50.0 57.9	190 154
Sm	II IV	6.3 5.6	4.7 7.8	89.0 86.6	191 153
Fw	II IV	37.6 44.2	23.8 16.0	38.6 39.8	188 156
Oa	II IV	55.7 57.2	21.4 13.0	22.9 29.8	192 152
Fa	II IV	26.5 27.1	11.6 17.2	61.9 55.6	189 155

The results show that the students had a high positive perception of the purpose served by evaluation in relation to academic progress, students' motivation, analysis of the students difficulties, prediction of performance in national examination and enabling students fit in society after school. The students feel that the evaluation by teachers does not assess the obedience of the students in relation to the school rules.

The results of how the teachers perceived the FDE are presented in Table 5.43.

TABLE 5.43

The percentages of how Teachers perceived the FDE.

Purpose of Evaluation	Nature of Perception			N
	Negative	Neutral	Positive	
Ap	3.3	6.7	90.0	30
Da	16.7	10.0	73.3	30
Pp	10.0	23.3	66.7	30
Cc	33.3	13.3	54.4	30
Sm	6.7	10.0	83.3	30
Fw	56.7	33.3	10.0	30
Oa	76.7	10.0	13.3	30
Fa	60.0	6.7	33.3	30

The results show that the teachers and students agreed on the FDE in respect to academic progress, difficulty analysis, prediction of performance in public examinations, career choosing and obedience analysis. However, they disagree on fitting in society after school, while the majority of teachers have a positive perception, the students have a negative perception.

With reference to the perception of FDE by students and teachers the null hypotheses 33 to 35 were tested for significance.

HYPOTHESIS 33

There is no significant difference in the nature (negative, neutral, positive) of the students perception of the eight elements in FDE.

The percentages of the students who were categorised as having a negative, neutral and positive perception of the FDE are presented in Table 5.42 Eight specific null hypotheses for the eight purposes of evaluation were tested

for significance using a Chi-square (X^2) and the results are presented in Table 5.44

TABLE 5.44

Chi-Square(x^2) values for Testing for significance in the nature (negative, Neutral, Positive) of perception of the FDE between Form II and Form IV Students.

	Chi-square Value			
Purpose of Evaluation	Calculated	Table	df	Level of Confidence
Academic Progress (Ap)	5.40*	4.60	2	$p \geq 0.10$
Difficulty Analysis (Da)	0.74******	0.71	2	$p \geq 0.70$
Performance prediction pp)	2.54****	2.41	2	$p \geq 0.30$
Career choosing (cc)	2.42****	2.41	2	$p \geq 0.30$
Students' Motivation (Fw)	1.35	1.39	2	$p \geq 0.50$
In society while in school	3.52****	3.22	2	$p \geq 0.20$
Obedience Analysis (Oa)	4.57	4.60	2	$p \geq 0.10$
In society after School (Fa)	2.42****	2.41	2	$p \geq 0.30$

* Significant at $p \geq 0.10$
** Significant at $p \geq 0.10$
*** Significant at $p \geq 0.20$
**** Significant at $p \geq 0.30$
****** Significant at $p \geq 0.07$

The findings in Table 5.44 show that the different null hypotheses were rejected at different levels of confidence. The specific null hypothesis that were rejected with a small probability of making a type I error are those

with respect to Academic progress, prediction of performance in public examinations, students career choosing and helping students to fit in society while in school and after school.

An examination of Table 5.44 revealed the following:-

a) Most students (89.%, N = 344) had a positive perception of FDE for assessing the students' progress regardless of whether they were in Form II or Form IV.

b) Most of the students (71.0%, N = 344) had a positive perception of FDE for students difficulty analysis.

c) About half of the students (53.4%, N = 344) had positive perception of the FDE of helping students in choosing their careers.

d) A good proportion of students (57.9%, N = 344) had a positive perception of the FDE in helping to predict the performance in the final national examinations.

e) A majority of the students (88.0%, N =344) had a positive perception of the teachers' evaluation methods in helping to motivate the students to work harder.

f) A majority of the students had either a negative (40.6%, N = 344) or positive (39.1%, N = 344) perception of the FDE in enabling students to fit in society while still in school.

g) A good proportion of the students (56.4%, N = 344) had a negative perception of FDE in finding out about students obedience.

h) A good perception of students (59.1%, N =344) had a positive perception of FDE in enabling the students fit in the society after graduating from schools.

From the results it can be observed that the students had a positive perception of the FDE elements except for obedient analysis where they had a negative perception, and fitting in society while in school where they had either a positive or negative perception.

HYPOTHESIS 34

There is no significant difference in the teachers' nature (Negative, Neutral, Positive) of perception of FDE.

The null hypothesis was tested for statistical significance using the chi-square (X^2). The Null hypothesis was rejected at $p \geq 0.001$, $X^2 = 101.76$, $df = 14$, X^2 crit = 36.12.

The results indicated that:-

a) Most of the teachers (90.0%) had a positive perception with regard to academic progress

b) A majority of the teachers (83.3%) had a positive perception concerning motivation of students.

c) A majority of teachers (73.3%) had a positive perception with reference to students difficulty analysis.

d) More teachers (66.7%) had a positive perception of evaluation in relation to helping students to choose their careers.

f) More teachers had a negative perception of the following elements of FDE: obedience analysis (76.7%), students' fitting in society while still in school (60.0%) and students' fitting in society after graduating from school (56.7%).

HYPOTHESIS 35

The perception of FDE is not significantly influenced by gender, students' level of education, type of school (urban, rural, single-mixed, boarding-day, public-private-public assisted), students age, teachers' level of training and teaching experience.

This is a very general hypothesis, more specific hypothesis were formulated so as to be tested for significance .

The variability in the perception of FDE due to students' gender was examined using a Two-Way ANOVA. The results are presented in Table 5.45.

TABLE 5.45

A Two-Way ANOVA Table Showing the influence of Gender among students on the perception of FDE.

Source of Variation	SS	df	Ms	Fcal.	F.Tables
Gender (R)	0.60	1	0.60	0.51	3.86
Evaluation Purpose (C)	182.03	7	26.00	22.22*	2.03
Interaction (RC)	39.62	7	5.66	4.84*	2.03
Within Cells (W)	542.90	464	1.17		
Total	765.15	479			

* Significant at α = 0.05

The findings in Table 5.45 show that the F Value due to variation from gender did not exceed the critical value but those due to purpose of evaluation and interaction between purpose of evaluation and gender exceeded the critical value at α = 0.05 level of confidence. From these results the null hypothesis that gender has got no significant influence on the perception of FDE was accepted. The null hypothesis that the purpose of evaluation has got no significant influence on the perception of evaluation was rejected.

The results of the data analysis indicate that there were no differences between male and female students in the perception of FDE. They also show that there were significant differences in how the eight elements of FDE were perceived. In the positive direction they were rated as follows: academic progress, students' motivation,

difficulty analysis, career choosing, prediction of performance in the public examinations, fitting in the society while in school and obedience analysis.

The variation in the perception of FDE due to the students level of education was examined using a Two-Way ANOVA and the results are presented in Table 5.46. The findings show that the F Value due to level of education did not exceed the critical value. Therefore, the null hypothesis that the students' level of education has got no significant influence on the perception of the FDE was accepted.

TABLE 5.46

A Two-Way ANOVA Table showing the influence of students' level of education and on the perception of FDE.

Source of Variation	SS	df	Ms	Fcal.	F Tables
Level of Education (R)	2.04	1	2.04	1.87	3.86
Purpose of Evaluation (C)	318.38	7	45.48	41.28*	2.03
Interaction (RC)	10.66	7	1.52	1.39	2.03
Within Cells (W)	520.85	480	1.09		
Total	851.93	495			

* Significant at $\alpha = 0.05$

The variation in the students' perception of FDE due to urban-rural differences in the schools was examined using a two-way ANOVA.

The results are presented in Table 5.47.

The ANOVA results show that all the F values exceeded the critical value at α = 0.05. Therefore, there is interaction between type of school (urban, rural) and the purpose of evaluation. The null hypothesis that type of school has got no significant influence on the perception of FDE was rejected. The students in urban school had a more positive perception of FDE than those in rural schools.

TABLE 5.47

A Two-Way Table showing the influence of type school (urban, rural) on the perception of FDE.

Source of Variation	SS	df	Ms	Fcal.	FTables
Type of School (R)	11.8	1	11.8	8.61*	3.86
Purpose of evaluation (C)	187.43	7	26.78	19.41*	2.03
Interaction (RC)	20.68	7	2.95	2.14*	2.03
Within cells (W)	686.25	496	1.38		
Total	906.16	511			

* Significant at α = 0.05

The variability of the perception of FDE due to the type of school (mixed, single) was examined using a Two-Way ANOVA and the results are presented in Table 5.48.

The findings show that all the F values exceeded the critical value at α = 0.05 level of confidence. This implies that:

a) there was interaction between purpose of evaluation and type of school (mixed, single).

b) the eight elements of FDE were signifcantly perceived differently.

c) the null hypothesis that the type of school (mixed, single) has got no significant influence on the perception of FDE was rejected.

TABLE 5.48

A Two-Way ANOVA Table showing the influence of type of school (mixed, single) on the perception of FDE.

Source of Variation	SS	df	Ms	Fcal.	F Tables
Type of School (R)	18.41	1	18.41	15.21*	3.86
Purpose of evaluation (C)	90.99	7	13.00	10.74*	2.03
Interaction Effects (RC)	44.12	7	6.30	5.21*	2.03
Within Cells (W)	559.47	464	1.21		
Total	712.99	479			

* Significant at α = 0.05

The students in single schools had more positive perception of the FDE than the students' in mixed schools.

The variation in the perception of evaluation due to school type :(boarding, day) was examined using a Two-Way ANOVA and the results are presented in Table 5.49. The value associated with variation in the school type (boarding, day)did not exceed the critical value. Therefore the null hypothesis was accepted. However, the results show that there was a significant interaction effects between type of school and purpose of evaluation.

TABLE 5.49

A Two-Way ANOVA showing how school type (boarding, day) influences the perception of FDE.

Source of Variation	Ss	df	Ms	Fcal.	F Tables
Type of School (R)	0.17	1	0.17	0.13	3.86
Purpose of Evaluation (C)	196.36	7	28.05	22.09*	2.03
Interaction affection (RC)	22.93	7	3.28	2.58*	2.03
Within Cells (W)	589.37	480	1.27		
Total	808.83	495			

* Significant at α = 0.05

The variability in the perception of evaluation due to the students' age was examined using a Two-Way ANOVA and the results are presented in Table 5.50.

TABLE 5.50

A Two-Way ANOVA showing the influence of students' age on the perception of FDE.

Source of Variation	SS	Df	Ms	F.Cal.	F Table
Students Age (R)	2.67	3	0.89	0.78	2.62
Purpose of Evaluation (C)	307.11	7	43.87	38.48*	2.03
Interaction Effects (RC)	28.25	1	1.35	1.18	1.60
Within Cells (W)	510.80	448	1.14		
Total (T)	848.83	479			

* Significant at α = 0.05

The findings in Table 5.50 show that the F value associated with variation due to age did not exceed the critical value. Therefore the null hypothesis that the students' age has got no significant influence on the perception of FDE was accepted. There was also no significant interaction between age and purpose of evaluation.

The variability in the perception of FDE due to type of school (private, public assisted, public) was examined using a Two-Way ANOVA and the results are presented in Table 5.51.

TABLE 5.51

A Two-Way ANOVA showing the influence of type of school (public, public assisted, private) on the perception of FDE.

Source of Variation	Ss	df	Ms	Fcal	F Table
Type of School (R)	22.90	2	11.45	8.45*	3.00
Purpose of evaluation (C)	279.84	7	39.98	29.83*	2.02
Interaction effect (RC)	930.73	14	1.74	1.30	1.70
Within Cells (W)	1257.80	696	1.34		
Total	2491.27	719			

* Significant at $\alpha = 0.05$

The findings in Table 5.51 show that the F value associated with the type of school exceeded the critical value at $\alpha = 0.05$ level of confidence. Therefore, the null hypothesis that the type of school (private, public assisted, public) has got no significant influence on the perception of FDE was rejected. The results show that the students in the private schools had the highest positive perception of FDE when compared with those in public and public assisted schools.

The variability in the perception of evaluation due to the teachers' teaching experience was examined using a Two-Way ANOVA and the results are presented in Table 5.52.

TABLE 5.52

A Two-Way ANOVA showing the influence of teaching experience on the perception of evaluation.

Source of Variation	SS	df	Ms	Fcal.	F Table
Teaching Experience (R)	4.24	2	2.14	1.80	3.04
Purpose of Evaluation (C)	196.08	7	28.01	23.34*	2.05
Interaction Effects (RC)	18.46	14	1.32	1.11	1.74
Within Cells (W)	322.65	272	1.19		
Total	541.43	295			

* Significant at $\alpha = 0.05$

The findings in Table 5.52 show that the value associated with variation due to the teaching experience did not exceed the critical value $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that teaching experience has got no significant influence on the perception of FDE was accepted. There are also no significant interaction effects between the teaching experience and purpose of evaluation.

The variability in the perception of evaluation due to gender among teachers when the FDE was considered, was investigated using a Two-Way ANOVA and the results are presented in Table 5.53.

TABLE 5.53

A Two-Way ANOVA showing the influence gender among teachers on the perception of FDE.

Source of Variation	SS	df	Ms	Fcal.	F Tables
Gender (R)	3.40	1	3.40	2.64	3.87
Purpose of Evaluation (C)	183.68	7	26.24	20.34*	2.04
Interaction Effects (RC)	9.07	7	1.30	1.01	2.04
Within Cells (W)	402.51	312	1.29		
Total	598.66	327			

* Significant at α = 0.05

The findings in Table 5.53 show that the F value associated with gender among teachers did not exceed the critical value at α= 0.05 level of confidence. Therefore the null hypothesis that gender among teachers has got no significant influence on the perception of evaluation was accepted. Also there are no significant interaction effects between gender among teachers and the perception of FDE.

The variability in the perception of FDE due to the teachers' level of training was considered using a Two-Way ANOVA. The results of the analysis are presented in Table 5.54.

TABLE 5.54

A Two-Way ANOVA showing the influence of teachers' level of training on the perception of FDE.

Source of Variation	SS	df	Ms	FCal.	F Table
Level of training (R)	2.26	2	1.13	2.13	4.71
Purpose of Evaluation (C)	183.25	7	26.18	49.40*	2.73
Interaction Effects (RC)	201.07	14	14.26	27.09*	2.17
Within Cells (W)	144.83	272	0.53		
Total (T)	531.41	295			

* Significant at $\alpha = 0.05$

The findings in Table 5.54 show that the F Value associated with the variation in the teachers' level of training did not exceed the critical value at the $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that the teachers' level of training has got no significant influence on the perception of FDE was accepted. There were significant interaction effects between teachers' level of training and the eight elements of FDE.

The variability in the perception of FDE due to differences between teachers and students was examined using a Two-Way ANOVA and the results are presented in Table 5.55.

TABLE 5.55

A Two-Way ANOVA Table showing how students and teachers (Ts-Ss) perceive the FDE.

Source of Variation	SS	df	Ms	FCal.	F Tables
Ts-Ss Variation (R)	9.92	1	9.92	5.28*	3.86
Purpose of Evaluation (C)	335.46	7	47.92	25.49*	2.03
Interaction Effects RC)	13.03	7	1.86	0.99	2.03
Within Cells (W)	551.37	464	1.88		
Total	909.78	479			

* Significant at $\alpha = 0.05$

The findings in Table 5.55 show that the F Value due to variation resulting from differences between teachers and students (Ts-Ss) exceeded the critical value at $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that there is no significant differences in the perception of FDE between teachers and students was rejected. The students have a more positive perception of evaluation than the teachers. There were no significant interaction effects between the purpose of evaluation and variation due to differences between teachers and students.

The study found that there was no significant variation in the perception of the functional dimension of evaluation among students in secondary schools due to gender, level of education, age and difference in boarding and day schools (Tables, 5.45,5.46,5.49, and 5.50). The study found a significant variation in the perception of

the functional dimension of evaluation among students due to differences in urban and rural schools, mixed, and single schools and private, public, public assisted schools (Tables 5.47,5.48, and 5.51).

The lack of significant differences among students in the perception of functional dimensions of evaluation due to gender, level of education, age and differences in boarding and day school might be due to common objectives of evaluation under these conditions. The expectations from the students does not take into consideration differences in boarding and day schools. This might also be due to the fact that most students are experiencing evaluational syndrome (see figure 5.2).

The students in urban schools had a more positive perception of the functional dimension of evaluation than those in rural schools. This might be due to differences in the students' experiences in the two environments, in relation to the school curriculum. The school curriculum seems to be more in agreement with urban environment than the rural environment.

The students in single schools had more positive perception of the functional dimension of evaluation than those in mixed schools. The significant differences might be attributed to social interaction differences in the two types of schools, which moderate the perception of evaluation. The opposite sex social interaction in mixed schools lead to competition which lowers the positive perception of the functional dimension of evaluation.

The students in private schools had a more positive perception of functional dimension than those in public schools. This differences might be due to the importance put on examinations by the school administration or leadership. Most of the private schools in Kakamega Municipality and Kabras division do not actively participate in non-academic inter-school activities. Since the components of the functional dimension of evaluation considered in this study were academically oriented, this may explain why the means for students in private schools were higher than those in public schools.

There were no significant variations in the perception of the functional dimension of evaluation among teachers due to gender, level of training and teaching experience, (Table 5.52 - 5.54). The absence of significant difference among teachers with respect to the perception of the functional dimension of evaluation might be attributed to the self-presentational effect as advanced by Baumeister (1982). Since in this study the functional dimension used considered the teacher as the sources, there is a possibility that the teachers would tend to present the best of the views that will enhance their individual personality.

There was a significant difference between teachers and students in their perception of the functional dimension of evaluation (Table 5,55). The students had a more positive perception of evaluation than the teachers. This implies that the students have more confidence in

evaluation than the teachers. The high confidence in evaluation by students can be attributed to the fact that students hope that their future nature of life will be determined by evaluation, as opposed to the teachers who are in a position to perceive evaluation more critically than the students.

There was a significant difference in how the eight components of the functional evaluation were perceived by students and teachers.

The students rated the components in the following order according to their importance: Monitoring of academic progress, motivation for the students, finding out students' difficulties, predicting future performance, helping students choose their careers, helping students to fit in society after graduation, helping students fit in society while in school and finding out the obedience of students. The fitting in society while in school and obedience analysis were rated very low by the students.

The teachers rated these components in the following order of importance: monitoring academic progress, motivating the students, predicting future performance in national examinations, finding out students' difficulties, career choosing, helping students to fit in society while in school, helping students fit in society after graduation and obedience analysis. The perception of the teachers show that the best four components are : monitoring academic progress, motivating the students, finding out students' difficulties and predicting performance in the

final national public examinations. It is clear that performance in national examination is not rated very highly in the functional dimension of evaluation.

The results on the perception of the functional dimension of evaluation indicate that only components related to academic achievement in school are rated highly. Character assessment and relevance of education to real life in the society are not regarded highly by teachers and students in secondary schools.

5.2.3 THE STUDENTS' AND TEACHERS' PERCEPTION OF THE SOURCE DIMENSION OF THE EVALUATION (SDE)

The objective was to find out how the source of evaluation as a dimension of evaluation is perceived by students and teachers in the secondary schools. There was also an investigation of how the perception of SDE is affected by the type of school (urban-rural, day-boarding, mixed-single, public-private-public assisted), gender, students' level of education, students' age, teachers' level of training and teaching experience.

The elements of SDE that were considered were teachers, parents, government education officers and students. The importance of the source was rated in relation to its ability to predict the performance of students in the final national examinations. The results are presented in Tables 5.56 to 5.78.

During the data analysis on the perception of SDE, hypothesis 36, 37 and 38 were tested for significance. As

far as the issue of who is the best placed to assess the students so as to obtain reliable evidence that can be used to predict performance in the final public examinations is concerned, the results from the students are presented in Table 5.56.

TABLE 5.56

The percentages(%) of how students perceived the SDE.

Source of Evaluation	Nature of Perception			N
	Negative	Neutral	Positive	
Parents	11.1	13.3	75.6	350
Teachers	7.7	3.3	89.0	350
Students	14.4	5.6	80.0	350
Government Officers	13.0	26.7	43.3	350
Total	15.8	12.2	72.0	

The results show that all the four sources are perceived positively by the students, but the teachers are the best and Government officers are not rated highly as good source of evaluation. The corresponding results from the teachers are shown in Table 5.57.

TABLE 5.57

The percentages of how Teachers perceived the SDE.

Source of Evaluation	Nature of Perception			N
	Negative	Neutral	Positive	
Parents	36.7	20.0	43.3	30
Teachers	10.0	0	90.0	30
Students	10.0	10.0	30.0	30
Government Officers	50.0	20.0	30.0	30
Total	26.7	17.5	55.8	

The results show that the teachers had no confidence in the assessment carried out by the government officers from the Ministry of Education, they concurred with the students that the assessments from teachers are the best.

HYPOTHESIS 36

There is no significant difference in the nature (Negative, Neutral, Positive) of the students' perception of SDE.

The percentages (%) of the students who were categorised as having a Negative or Neutral or positive perception of evaluation with regard to the source of evaluation are presented in Table 5.56.

The null hypothesis (36) was tested for significance using a chi-square (X^2) test. The null hypothesis was rejected at $P \geq 0.001$, $X^2 = 55.83$, df = 6, X^2 crit = 22.46. An examination of Table 5.56 shows that most students had a positive perception of the sources of evaluation according to the following order of importance : Teachers, Students and Parents. The government education officers were not highly regarded as a reliable source of evaluation.

HYPOTHESIS 37

There is no significant difference in the teachers' nature (Negative, Neutral, Positive) of perception of SDE.

The percentage (%) of the teachers who were categorised as having a negative or neutral or positive perception of evaluation with regard to the source of evaluation are presented Table 5.57.

The null hypothesis was tested for significance using a chi-square (X^2) test. The null hypothesis was rejected at $P \geq 0.001$, $X^2 = 32.82$, df = 6, X^2 crit = 22.46.

An examination of Table 5.57 show that most teachers had positive perception of evaluation with regard to the teachers and students as sources of evaluation but not parents or government education officers.

HYPOTHESIS 38

The perception of SDE is not significantly influenced by the type of school, gender, students' age, students' level of education, teachers level of training and teaching experience.

This is a general hypothesis, more specific hypotheses were formulated so as to test for significance. Table 5.58 gives a summary statistics for the scores of the students in boarding and day schools on the perception of the source of evaluation scale.

TABLE 5.58

The Mean of the Scores of Students in Boarding and Day Schools on the Perception of SDE scale.

Type of School		Source of Evaluation				Total
		Teachers	Parents	Government Officer	Students	
Day School	Mean	4.00	3.33	3.23	4.17	3.68
	s.d	1.23	1.12	1.27	1.05	1.22
	n	30	30	30	30	120
Boarding school	Mean	4.57	3.63	2.93	4.27	3.85
	s.d	0.57	1.13	1.28	0.78	1.16
	n	30	30	30	30	120
Total	Mean	4.28	3.48	3.08	4.26	3.77
	s.d	0.99	1.13	1.25	0.92	1.17
	n	60	60	60	60	

The variation in the perception of SDE due to type of school (boarding, day) was examined using a Two-Way ANOVA and the results are presented in Table 5.59.

TABLE 5.59

A Two-Way ANOVA showing how the Type of School (Boarding, Day) affects the perception of SDE.

Source of Variation	ss	df	ms	FCal.	F Tables
Type of School (R)	1.66	1	1.66	1.43	3.876
Source of Evaluation (C)	61.00	3	20.33	17.53*	2.62
Interaction Effects (RC)	6.00	3	2.00	1.72	2.62
Within Cells (W)	268.27	232	1.16		
Total	336.93	239			

* Significant at $\alpha = 0.05$

The findings in Table 5.59 show that only the F value associated with variation due to source of evaluation (parents, teachers, students, government officers) exceeded the critical value at $\alpha = 0.05$ level of confidence. This implies that:

a) the null hypothesis that type of school (boarding, day) has got no significant influence on the perception of evaluation was accepted.

b) there are no significant interaction effects between source of evaluation and type of school (boarding, day).

c) the null hypothesis that the source of evaluation has got no significant influence on the perception of evaluation was rejected.

An examination of Table 5.56 shows that the students perceived the sources of evaluation in the following order according to positive importance: teachers, students, parents and government education officers.

Table 5.60 gives the means and standard deviation of the scores of male and female students on the perception of SDE scale.

TABLE 5.60

The Means of the Students' Scores on the Perception of Source of Evaluation Scale.

Gender		Source of Evaluation				Total
		teachers	Parents	Government	Students	
Male Students	Mean	4.31	3.69	2.78	4.20	3.74
	s.d	0.85	0.90	1.15	1.19	1.19
	n	45	45	45	45	180
Female Students	Mean	4.29	3.87	3.56	4.07	3.94
	s.d	1.08	0.94	1.08	1.27	1.12
	n	45	45	45	45	180
Total	Mean	4.30	3.78	3.17	4.13	3.85
	s.d	0.97	0.92	1.17	1.23	1.16
	n	90	90	90	90	360

The variability in the perception of SDE due to gender among students was examined using a Two-Way ANOVA and the results are presented in Table 5.61.

TABLE 5.61

A Two-Way ANOVA Showing how Gender Among Students influences the Perception of SDE

Source of Variation	ss	df	ms	Fcal.	F Tables
Gender (R)	3.60	1	3.60	3.05	3.86
Source of Evaluation (C)	67.93	3	22.64	19.19*	2.62
Interaction Effects (RC)	11.10	3	3.70	3.14*	2.62
Within Cells (W)	416.66	352	1.18		
TOTAL	499.29	559			

* Significant at $\alpha = 0.05$

The findings in Table 5.61 show that the F value associated with variations due to gender did not exceed the critical value at the $\alpha = 0.05$ level of confidence. Therefore, the null hypothesis that gender among students has got no significant influence on the perception of evaluation was accepted. However, there are significant interaction effects between gender and source of evaluation.

Table 5.62 gives the means and standard evasions of the scores of students in public, public assisted and private schools on the perception of the source of evaluation scale.

TABLE 5.62

The Mean scores of the Students on the perception of SDE scale.

Type of School		Source of Evaluation				Total
		Teachers	Parents	Government Officers	Students	
Public Schools	Meas	4.23	3.63	2.80	4.00	3.67
	s.d	0.90	0.89	1.19	1.39	1.23
	n	30	30	30	30	120
Public Assist Schools	Mean	3.60	3.43	3.40	3.90	3.58
	s.d	1.22	1.09	1.25	0.21	1.20
	n	30	30	30	30	120
Private School	Mean	4.17	3.50	2.93	4.53	3.78
	s.d	1.18	1.20	1.34	0.82	1.29
	n	30	30	30	30	120
Total	Mean	4.00	3.52	3.04	4.14	3.68
	s.d	1.13	1.06	1.27	1.19	1.24
	n	90	90	90	90	360

The variability in the perception of SDE among students due to type of school (public, public assisted, private) was examined using a Two-Way ANOVA and results are presented in Table 5.63.

TABLE 5.63

The Mean scores of the Students on the Perception of SDE Scale.

Level of Education		Source of Evaluation				Total
		Teachers	Parents	Government Officers	Students	
Form II Students	Mean	4.27	3.53	3.78	4.09	3.77
	s.d	0.51	1.10	1.28	1.08	1.25
	n	45	45	45	45	180
Form IV Students	Mean	4.27	3.64	3.00	4.04	1.19
	s.d	0.96	0.98	1.11	1.30	1.20
	n	45	45	45	45	180
Total	Mean	4.48	3.59	2.87	4.07	3.75
	s.d	0.80	1.04	1.20	1.19	1.22
	n	90	90	90	90	360

The variability in the perception of SDE due to the level of students' education (Form II, Form IV) was examined using a Two-Way ANOVA and the results are presented in Table 5.64.

TABLE 5.64

A Two-Way ANOVA showing the influence Type of school on the perception of SDE by students.

Source of Variation	ss	df	ms	Fcal.	F Tables
Type of School (R)	2.42	2	1.21	0.91	3.02
Source of Evaluation (C)	67.22	3	22.41	16.85*	2.62
Interaction effects (RC)	18.38	6	2.73	2.05	2.12
Within Cells (W)	462.60	348	1.33		
Total	550.62	359			

significant at α = 0.05

The finding in Table 5.63 show that the F value associated with variation due to type of school did not exceed the critical value at α = 0.05 level of confidence. Therefore the null hypothesis that type of school (private, public, public assisted) has got no significant influence on the perception of evaluation was accepted. There are also no significant interaction effects between type of school and source of evaluation.

Table 5.64 gives the summary statistics of the scores of the Form II and Form IV students on the perception of the source of evaluation scale.

TABLE 5.64

A Two-Way ANOVA Showing how the Level of Education Influences the Perception of SDE.

Source of Variation	ss	df	ms	Fcal	F Tables
Level of Education (R)	0.18	1	0.18	0.16	3.86
Source of Evaluation (C)	129.26	3	43.09	37.80*	2.62
Interaction Effects (RC)	4.86	3	1.62	1.42	2.62
Within Cells (W)	401.20	352	1.14		
Total	535.50	359			

* Significant at $\alpha = 0.05$

The findings in Table 5.64 show that the F value associated with variation due to level of education did nit exceed the critical value at $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that the level of education does not significantly influence the perception of evaluation among students was accepted. There were also no significant interaction effects between level of students' education and source of evaluation.

Table 5.65 gives the summary statistics of the students' scores on the SDE scale according to age.

TABLE 5.65

The Means of the Students scores on the perception of scale.

Source of Evaluation		The age Group of the Students				Total
		22-21	20-19	18-17	16-15	
Teachers	Mean	4.13	4.42	4.29	4.46	4.52
	s.d	1.19	0.88	0.86	0.78	0.93
	n	24	24	24	24	96
Parents	Mean	3.42	3.71	3.33	3.46	3.48
	s.d	1.14	0.86	1.17	0.98	1.04
	n	24	24	24	24	96
Government Education Officers	Mean	3.04	2.88	3.08	3.54	.14
	s.d	1.43	1.08	1.32	1.10	1.24
	n	24	24	24	24	96
Students	Mean	4.46	4.00	4.38	2.79	4.16
	s.d	0.66	1.41	1.13	1.35	1.19
	n	24	24	24	24	96
Total	mean	3,74	3.74	3.77	3.81	3.77
	s.d	1,24	1.19	1.25	1.13	1.20
	n	96	96	96	96	384

The variability in the perception of SDE due to the students' age was examined using a two-Way ANOVA and the results are presented in Table 5.66

TABLE 5.66

A Two_Way ANOVA showing the influence of students' age on the perception of SDE.

Source of Variation	ss	df	ms	Fcal.	F Tables
Source of Evaluation (R)	90.44	3	30.15	25.13*	2.62
Students Age (C)	0.22	3	0.07	0.06	2.62
Interaction Effects (RC)	16.24	9	1.80	1.50	1.90
Within Cells (W)	442.38	368	1.20		
Total	549.28	383			

* Significant at α = 0.05

The findings in Table 5.66 show that the F value associated with variation due to age did not exceed the critical value at α = 0.05. Therefore the null hypothesis that the students' age has got no significant influence on the perception of evaluation was accepted. The results also show that there are no significant interaction effects between the students age and source of evaluation.

Table 5.67 gives the summary statistics of the scores of the students (in mixed and single schools) on the perception of the source of evaluation scale.

TABLE 5.67

The means of students' scores on the perception of evaluation scale with regard to source of evaluation.

Type of school		Source of Evaluation				Total
		Teachers	parents	Government Officers	Students	
Mixed	Mean	3.84	3,11	3.07	4.20	3.61
	s.d	1.22	1.16	1.27	1.08	1.26
	n	45	45	45	45	180
Single	Mean	4.18	3.64	2.96	4.04	3.71
	s.d	1.07	0.98	1.11	1.30	1.21
	n	45	45	45	45	180
Total	Mean	4.01	3.48	3.01	4.12	3.66
	s.d	1.16	1.08	1.19	1.1990	1.24
	n	90	90	90		360

The variability in the perception of SDE due to type of school (mixed, single) was examined using Two-Way ANOVA and the results are presented in Table 5.68. The results show that the F Value associated with variation due to type of school (mixed, single) did not exceed the critical value at α = 0.05 level of confidence. Therefore the null hypothesis that the type of school (mixed, single) has got no significant influence on the perception of the source of evaluation was accepted.

TABLE 5.68

A Two Way ANOVA showing the influence of the Type of school (Mixed, Single) on the perception of SDE.

Source of Variation	ss	df	ms	Fcal.	F Tables
Type of School (R)	0.90	1	0.90	0.67	3.86
Source of Evaluation (C)	71.20	3	23.73	17.71*	2.62
Interaction Effects (RC)	4.92	3	1.64	1.22	2.62
Within Cells(W)	470.27	352	1.34		
Total	547.29	359			

* Significant at $\alpha = 0.05$

The findings show that there are no significant interaction effects between type of school (mixed, single) and the source of evaluation.

Table 5.69 gives the summary statistics for the scores of students in urban and rural schools on the perception of the source of evaluation scale.

TABLE 5.69

The Mean scores of the students on the perception of SDE scale.

Type of school		Source of Evaluation				Total
		Teachers	Parents	Government Officers	Students	
Urban Schools	Mean	4.40	3.62	2.93	4.22	3.79
	s.d	0.96	1.05	1.29	1.00	1.22
	n	45	45	45	45	45
Rural schools	Mean	3.91	3.64	3.42	4.00	3.74
	s.d	1.12	1.00	1.17	1.26	1.16
	n	45	45	45	45	180
Total	Mean	4.16	3.63	3.18	4.11	3.77
	s.d	1.07	1.02	1.25	1.14	1.19
	n	90	90	90	90	360

The variability in the perception of evaluation due to source of evaluation and type of school (urban, rural) was examined using a Two-Way ANOVA and the results are presented in Table 5.70. The findings show that the F value associated with variation due to type of school (urban, rural) did not exceed the critical value at α = 0.05. Therefore the null hypothesis that type of school (urban, rural) has got no significant influence on the perception of evaluation was accepted. The results show that here are significant interaction effects between type [illegible] and the source of evaluation.

TABLE 5.70

A Two-Way ANOVA Table showing the effect of type of School (Urban, Rural) on the Perception of SDE.

Source of variations	ss	df	ms	Fcal	F Tables
Type of Schools (R)	0.22	1	0.22	1.18	3.86
Source of Evaluation (C)	57.09	3	19.03	15.35*	2.62
Interaction Effects (RC)	11.66	3	3.89	3.14*	2.62
Within Cells (W)	436.89	352	1.24		
Total	505.86	359			

* Significant at $\alpha = 0.05$

Table 5.71 gives the summary statistics for the scores of teachers on the perception of the source of evaluation, when the teaching experience of the teachers was considered.

TABLE 5.71

The Means of the Teachers' scores on the Perception of Source of Evaluation Scale when the Teaching Experience was considered.

Source of Evaluation		Teaching Experience			Total
		Below 2 Years	2 - 5 Years	Above 5 Years	
Teachers	Mean	4.88	4.14	4.07	4.25
	s.d	0.35	1.03	1.38	1.11
Parents	Mean	3.13	3.36	3.21	3.25
	s.d	1,36	1.01	1.31	1.18
Government Education Officers	Mean	2.50	3.21	2.42	2.75
	s.d	1.20	1.31	1.09	1.23
Students	Mean	3.75	4.00	3.64	3.81
	s.d	1.28	0.78	1.39	1.14
Total	mean	3.56	3.68	3.34	3.52
	s.d	1,39	1.10	1,40	1.29

n = 12

The variability in the perception of SDE due to the teachers' teaching experience was examined using a Two-Way ANOVA and the results are presented in Table 5.72.

TABLE 5.72

A Two-Way ANOVA showing the influence of Teachers' Teaching Experience on the Perception of SDE.

Source of Variation	ss	df	ms	Fcal.	F Tables
Source of Evaluation (R)	47.58	3	15.86	11.58*	2.68
Teaching Experience (C)	3.30	2	1,65	1.20	3.07
Interaction Effects (RC)	6.60	6	1.10	0.80	2.17
Within Cells(W)	180.46	132	1.37		
Total	237.94	143			

* Significant at α = 0.05

The findings in table 5.72 show that the F value associated with the variation due to the teacher's teaching experience did not exceed the critical value at α = 0.05 level of confidence. Therefore the null hypothesis that the teachers teaching experience has got no significant influence on the perception of evaluation was accepted. Also the results show that there are no significant interaction effects between source of evaluation and teaching experience.

Table 5.73 gives the means of the teachers' scores on the perception of evaluation scale in relation to source of evaluation when teachers' gender was considered.

TABLE 5.73

The Means of the Teachers' Scores on the Perception of SDE According to Gender.

Gender		Source of Evaluation				Total
		Teachers	Parents	Government Officers	Students	
Male	Mean	4.64	3.29	2,86	4.11	3.72
	s.d	0.56	1.12	1,27	1.10	-
Female	mean	3.46	2.46	2,46	3.62	3,13
	s.d	1.61	1.05	1.05	1.12	-
Total	Mean	4.27	3.20	2.73	3.95	3.54

The variability in the perception of SDE due to gender was examined using a Two-Way ANOVA and the results are presented in Table 5.74.

The findings in Table 5.74 show that the F value associated with variation due to gender among teachers exceeded the critical values at $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that gender has got no significant influence on the perception of SDE was rejected.

TABLE 5.74

A Two-Way ANOVA Showing the Effect of Teachers' Gender on the Perception of SDE.

Source of Variation	ss	df	ms	Fcal.	F Tables
Gender (R)	12.30	1	12.30	5.69*	3.91
Source of Variation (RC)	60.34	3	20.11	15.83*	2.67
Interaction Effects (RC)	4.35	3	1.45	1.14	
Within Cells (W)	197.79	156	1.27		
Total	274.78	163			

* Significant at $\alpha = 0.05$

The male teachers had higher positive perception of the four sources of perception than the female teachers (Table 5.73). There is no significant interaction effect between teachers' gender and source of evaluation.

Table 5.75 gives the summary of the scores of teachers on the perception of the source of evaluation when the level of teachers' training was considered.

TABLE 5.75

The Means of the Teachers' scores on the perception of Evaluation Scale when the Teachers' Level of Training was considered.

Source of Evaluation		Teachers' level of Training			Total
		Untrained	Diploma	Graduate	
Teachers	Mean	4.40	4.36	4.13	4.26
	s.d	0.55	1.08	1.31	1.12
Parents	Mean	3.00	3.29	3.25	3.23
	s.d	1.00	0.99	1.3	1.17
Government Education Officers	Mean	2.40	2.64	2.38	2.49
	s.d	1.14	1.22	1.20	1.17
Students	Mean	3.80	4.07	3.88	3.94
	s.d	1.10	0.92	1.09	1.00
Total	mean	3.40	3.59	3.41	3.48
	s.d	1.19	1.23	1.40	1.30

n = 12

The variability in the perception of SDE due to teachers' teaching experience was examined using a Two-Way ANOVA and the results are presented in Table 5.76

TABLE 5.76

A Two-Way ANOVA showing the Influence of the Teachers' Level of Training on The Perception of SDE.

Source of Variation	ss	df	ms	FCal.	F Tables
Source of Evaluation (R)	65.45	3	21.82	16.66*	2.68
Level of Training (C)	1.15	2	0.58	0.44	3.07
Interaction Effects (RC)	0.68	6	0.11	0.08	2.17
Within Cells (W)	167.66	128	1.31		
Total	234.94	139			

* Significant at $\alpha = 0.05$

The findings in Table 5.76 show that the F value associated with variation due to the teachers' level of training did not exceed the critical value at the $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that the teachers' level of training has got no significant influence on the perception of SDE was accepted. The findings also show that there were no significant interaction effects between the teachers' level of training and source of evaluation.

Table 5.77 gives a summary statistics of the scores of students and teachers on the perception of the SDE scale.

TABLE 5.77

The Means of the Students' and Teachers' Scores on the SDE Scale.

Source of Variation		Source of Evaluation				Total
		Teachers	Parents	Government officers	Students	
Teachers	Mean	4.27	3.00	2.67	3.60	3.38
	s.d	1.20	1.11	1.32	1.13	1.33
	n	30	30	30	30	120
Students	Mean	4.23	3.77	3.50	4.20	3.93
	s.d	1.01	0.82	1.01	1.06	1.01
	n	30	30	30	30	120
Total	Mean	4.25	3.38	3.98	3.90	3.65
	s.d	1.10	1.04	1.24	1.13	1.21
	n	60	60	60	60	240

The variability in the perception of source of evaluation due to differences between students and teachers in the secondary schools was examined using a Two-Way ANOVA and the results are presented in Table 5.78.

TABLE 5.78

A Two-Way ANOVA Showing how Differences Between teachers and students influence the Perception of Evaluation.

Source of Variation	ss	df	ms	Fcal	F Tables
Student-teacher Variation (R)	17.61	1	17.61	14.80*	3.89
Source of Evaluation (C)	48.88	3	16.26	13.69*	3.65
Interaction Effects (RC)	7.04	3	2.35	1.97	3.65
Within Cells (W)	276.77	232	1.19		
Total	350.30	239			

The findings in Table 5.78 show that the F value associated with variation due to differences between students and teachers in the perception of evaluation exceeded the critical value at the $\alpha = 0.05$ level of confidence. Therefore the null hypothesis that there is no significant differences between teachers and students in their perception of SDE was rejected. An examination of Table 5.77 shows that the students had a more positive perception of the sources of evaluation than teachers. The results also indicated that there were no significant interaction effects between the source of evaluation and difference between students and teachers.

After the data analysis, the study found that there was no significant variation among students in the perception of the source dimension of evaluation due to gender, age, level of education and type of school (boarding, day, public-private, mixed-single, and urban-rural) differences (Tables 5.56-5.58-5.71). The lack of significant difference under different types of schools, gender, age, level of education illustrates the general consensus among students about the importance of the source of dimension of evaluation. All the students agreed that the teacher is the best component in this dimension; regardless of the type of school, age, gender and level of education.

The study found no significant variation among teachers in the perception of the source dimension of evaluation due to the teaching experience and level of

training. Regardless of the teaching experience and the level of training, the teacher was the best component of the source of dimension of evaluation, (Tables, 5.57, 5.71, 5.72 and 5.76). However, gender had a significant effect on the perception of the source dimension of evaluation. The male teachers had higher positive perception than the female teachers (Tables 5.73 and 5.74). The gender effect among teachers might be due to the African traditional cultural practices which do not allow females to make a public judgment as compared to the males. This makes the female teachers rate themselves lower in their own ability to constitute a component in the source dimension of evaluation.

The four components of the source dimension of evaluation were significantly perceived differently by teachers and students (Tables 5.56-5.78). Both the teachers and students expressed a high positive attitude that the teacher was best component and second best was the student among the four components considered in the source dimension of evaluation. The teacher is considered the best component because, the teachers form the nuclear of the implementation of the school curriculum.

There was a significant difference between students and teachers in their perception of the source dimension of evaluation. The students had a higher overall mean score than the teachers in the positive perception (Table 5.76). The difference can be attributed to the critical view of evaluation by teachers when compared to students.

5.3 AGE DIFFERENCES AMONG STUDENTS

The objective was to find out if there are significant age differences among students in secondary schools. There was an investigation in the age difference between the following groups of students:-

a) male and Female

b) urban and Rural

c) Boarding and day schools

d) Private, public assisted, public schools

e) From II and Form IV students

f) Mixed and single schools

To test for significance, specific hypothesis testing was carried out.

HYPOTHESIS 39

There is no significant difference in Age between male and female students in secondary schools.

The Null hypothesis was rejected at $\alpha = 0.05$, $t = 3.08$, $df = 158$, $t_{crit} = 198$. The boys in secondary schools are older ($\overline{X}$=19.4 years, N = 102) than girls ($\overline{X}$ = 18.8 years, N = 58).

HYPOTHESIS 40

There is no significant age difference between Form II and Form IV students.

The null hypothesis was rejected at $\alpha = 0.05$, $t = 15.04$, $df = 372$, $t_{crit} = 1.98$

The Form IV students are older ($\overline{X}$ = 19.16 years, N = 160) than Form II students ($\overline{X}$ = 17.34 years, N = 216).

HYPOTHESIS 41

There is no significant age differences between the students in urban and rural secondary schools.

The null hypothesis was accepted at α = 0.05, t = 0.83, df = 157, tcrit = 1.98.

HYPOTHESIS 42

There is no significant age difference between students in boarding and day secondary schools.

The null hypothesis was rejected at α = 0.05, t = 5.08, df = 158, tcrit. = 1.98.

Students in day schools are older ($\overline{X}$ = 19.6 years, N = 89) than those in boarding schools ($\overline{x}$ = 18.6, N = 71)

HYPOTHESIS 43

There is no significant age difference among students in private, public assisted and public schools.

The null hypothesis was tested using a One-Way ANOVA and the results are presented in Table 5.78

TABLE 5.79

A One-Way ANOVA showing the age differences in the Three Types of Schools (Private, Public, Public Assisted).

Source of Variation	ss	df	ms	Fcal.	F Tables
Between Groups (B)	28.94	2	14.47	8.41*	3.06
Within Groups (W)	269.02	156	1.72		
Total	297.96	158			

* Significant at α = 0.05

The findings in Table 5.79 show that the calculated value of F is greater than the table Value. Therefore the null hypothesis was rejected at α = 0.05, level of confidence.

The students in private schools are older ($\bar{X}$ = 20.0 years) than those in public assisted ($\bar{X}$ = 19.1 years) and public schools ($\bar{X}$ = 18.8 years).

HYPOTHESIS 44

There is no significant age difference between students in mixed and single schools.

The null hypothesis was rejected at α = 0.05, t = 6.46, df = 158, tcrit = 1.98.

The students in mixed schools ($\bar{X}$ = 19.7) are older than those in single schools ($\bar{X}$ = 18.5).

A total of 374 students were used as subjects. Their ages ranged from 15 to 23 years. There was no significant age differences between urban and rural schools.

The study found that there was a significant age difference among students due to gender, level of education

and type of school (boarding-day, public-private and mixed-single) differences. The male students were older than the female students, this is likely to be due to the tendance of parents to take girls to school when they are younger than the boys. Most parents fear that girls cannot successfully graduate from school if they are advanced in their age as compared to boys. The students in Form IV are older than those in form II.

The students in day schools are older than those in boarding schools. The students in mixed schools are older than those in single schools. The explanations for the differences can be due to the willingness of day, private and mixed schools to accept the students to repeat provided they can pay the school fees; this is a rare occurrence among boarding, public and single schools.

5.4 THE RELATIONSHIP BETWEEN PERCEPTION OF EVALUATION AND ACADEMIC PERFORMANCE AMONG STUDENTS

So far, an investigation of the students' and teachers' locus of control, perception of the school environment and the perception of the 4 - pm of evaluation has been carried out in this chapter.

The next objective was to find out if there were any significant differences in academic performance among students due to age, gender and type of school (boarding-day, mixed-single, urban-rural, and private-public-public assisted). The other issue was to find out if there were

any significant relationships between academic performance of the students and the following factors:

a) Locus of control

b) Perception of school environment

c) perception of the 4-pm of evaluation.

For the Form IV students the relationship between academic performance in the final public National Examinations and Mock examination was also investigated. The relationship between perception of evaluation and academic performance among students was investigated by testing hypotheses 45 to 56 for significance.

HYPOTHESIS 45

There is no significant difference in the academic performance between students in boarding and day schools.

The null hypothesis was accepted at $\alpha = 0.05$, $t = 0.57$, $df = 137$, $t_{crit} = 1.96$, $F(62,75) = 1.33$, $F_{crit} = 1.45$, $\alpha = 0.05$.

HYPOTHESIS 46

There is no significant difference in academic performance between students in single and mixed schools.

The null hypothesis was accepted at $\alpha = 0.05$, $t = 0.54$, $df = 128$, $t_{crit} = 1.98$, $F = (64,64) = 1.41$, $\alpha = 0.05$, $F_{crit} = 1.49$.

HYPOTHESIS 47

The is no significant difference in academic performance between male and female students in secondary schools.

The null hypothesis was rejected at $\alpha = 0.05$, $F(5,56) = 1.72$, Fcrit = 1.52. The boys performed better ($\bar{X} = 5.09$, $s = 2.31$) than girls ($\bar{x} = 4.05$, $s = 1.34$)

HYPOTHESIS 48

There is no significant difference in academic performance between students in urban and rural secondary schools.

The null hypothesis was rejected at $\alpha = 0.05$, $F(78,65) = 1.64$, Fcrit = 1.49. the students in urban schools performed better ($\bar{X} = 5.35$, $s = 2.36$) than those in rural schools ($\bar{x} = 4.38$, $s = 1.44$).

HYPOTHESIS 49

There is no significant difference in academic performance among secondary school students due to age.

The variability in academic performance due to students' age was examined using a One-Way ANOA and the results are presented in Table 5.80. The findings show that the F value exceeded the critical value at the $\alpha = 0.05$ level of confidence. Therefore the null hypothesis was rejected. The older students (22 - 21 years) had lower mean grade ($\bar{x} = 3.55$) than the younger students (20 - 19 years, $\bar{x} = 4.8$) and (18 - 17 years, $\bar{x} = 5.34$).

TABLE 5.80

A One-Way ANOA Table Showing the Influence of Students' Age on Academic performance.

Source of Variation	ss	df	ms	Fcal.	F Tables
Between Groups	50.06	2	25.03	6.34*	3.06
Within Groups	560.34	142	3.95		
Total	610.40	144			

* Significant at α = 0.05

HYPOTHESIS 50

There is no significant difference in academic performance among students due to type of school (public, private, public assisted)

The variability in academic performance due to type of school (public, private, public assisted) was examined using a One-Way ANOVA and the results are presented in Table 5.81.

TABLE 5.81

One-Way ANOVA showing the influence of type of school on Academic Performance.

Source of Variation	ss	df	ms	Fcal	F Tables
Between Groups	245.19	2	122.60	66.27*	3.13
Within Groups	127.92	69	1.85		
Total	373.11	71			

* Significant at α = 0.05

The findings in Table 5.81 show that the F value exceeded the critical value at α = 0.05 level of confidence. Therefore the null hypothesis was rejected. The students in private schools had the lowest mean score ($\bar{x}$ = 3.78) and those in public schools had the highest ($\bar{x}$ = 7.67).

HYPOTHESIS 51

There is no significant relationship between the students' academic performance in public national and mock examinations in secondary schools.

The null hypothesis was rejected. The students who performed well in mock examinations also performed well in the final national examinations.

The pearson correlation coefficient, r = 0.85, t = 16.69, df = 107, tcrit = 1.98, α = 0.05). This implies that there is a strong and significant positive relationship between performance in mock examinations and the final national public examinations.

HYPOTHESIS 52

There is no significant relationship between academic performance and:

a) Locus of control

b) Perception of school environment.

The summary of the statistics used to test the null hypothesis for significance is presented in Table 5.82. The t value was obtained by converting the pearson correlation coefficient r, into t.

TABLE 5.82

The correlation coefficient values (r) used to test for Significance between academic Performance and locus of control and perception of School Environment..

	Locus of control				Perception of school environment			
	N	r	t	df	N	r	t	df
Form II Students	102	0.053	0.53	100	102	0.32	0.32	100
Form IV students	145	0.02	0.24	143	145	0.17	2.06*	143

* Significant at $\alpha = 0.05$

The findings in Table 5.82 show that the t value due to the relationship between academic performance and perception of school environment for the Form IV students was the only one that exceeded the critical value at $\alpha = 0.05$ level of confidence. Therefore from the table, the only null hypothesis that was rejected was that there is no significant relationship between perception of school environment and academic performance among the Form IV students. This implies that the Form IV students who had

a positive perception of the school environment performed well academically. The other three specific null hypothesis were accepted.

HYPOTHESIS 53.

There is no significant relationship between academic performance and perception of the IDE among the Form II and Form IV Students)

The summary statistics used to test the null hypothesis for significance is presented in Table 5.83.

TABLE 5.83

The Correlation Coefficient (r) values used to test null hypothesis (53) for significance.

		Methods of Evaluation						
		Pe	Tc	Ca	Cp	Mt	Pt	Et
Form II Students	N	102	102	102	102	102	102	102
	r	0.080	0.016	0.063	-0.15	0.17	0.19	0.16
	t	0.803	0.16	0.63	-1.55**	1.73***	1.94***	1.62**
	df	100	100	100	100	100	100	100
Form IV Students	N	145	145	145	145	145	145	145
	r	0.08	-0.18	-0.025	-0.28	-0.001	0.18	-0.059
	t	0.97	-2.19*	-0.31	-3.52*	-0.012	2.21*	-0.71
	df	143	143	143	143	143	143	143

*** Significant at $\alpha = 0.05$ for one tailed test
* Significant at $\alpha = 0.05$ for two tailed test
** Significant at $\alpha = 0.10$ for one tailed test.

The findings in Table 5. 83 shows that of the Fourteen specific relationships examined by converting coefficient r to t values, seven null hypothesis were rejected. Those that were rejected were:

i) There is no significant relationship between academic performance and teachers comments among the Form IV students, at α = 0.05, tcrit = 1.98 for two tailed test. Thus, the Form IV students who have a positive perception of the teachers' comments perform poorly compared with those with negative perception.

ii) There is no significant relationship between academic performance and the perception of the class projects among the Form IV students at α = 0.05, tcrit = 1.29, for a two tailed test) and Form II students (at α = 0.10, tcrit = 1.29, for a one tailed test). This implies that students with a negative perception of class projects perform better than those with positive perception.

iii) There is no significant relationship between the academic performance and the perception of the importance of Mock examinations among the Form II students (at α = 0.05, tcrit = 1.66 for one tailed test). The Form II students who have a positive perception of the mock examinations perform better than those with the negative perception.

iv) There is no significant relationship between academic performance and the perception of the importance of the periodic tests among the Form II and Form IV students (at α = 0.05, t crit = 1.66. Students who perceive the periodic tests positively perform better academically compared to those with a negative perception of the periodic tests.

v) There is no significant relationship between academic performance and the perception of the importance of termly tests among the Form II students (at α = 0.10, tcrit = 1.29, for one tailed test). The Form II students who perceived the termly tests positively performed better than those with negative perception, in academic work.

It is evident from the findings that there is no significant relationship between academic performance and the perception of the national public examinations and class assignments among the Form II and Form IV students. Also for the Form IV students there is no significant relationship between academic performance and the perception of mock examinations.

HYPOTHESIS 54

There is no significant relationship between academic performance and the perception of the FDE among the Form II and Form IV students.

The summary statistics used to test the null hypothesis for significance is presented in Table 5.84.

TABLE 5.84

The Correlation Coefficient (r) Values used to Test Null Hypothesis (54) for Significance.

Class		ELEMENTS OF FDE							
		AP	DA	PP	CC	SM	FW	OA	FA
Form II	r	.026	.073	.19	-.54	.15	-.14	.21	0.16
Students	t	.26	.73	1.91***	-6.42*	1.56**	-1.45**	2.15*	1.62**
Form IV	r	.004	.17	.05	.10	-.28	-.12	-0.25	.052
Students	t	.05	2.06*	.061	1.20	-3.49*	-1.48**	-0.31	0.62

df = N - 2,

* Significant at $\alpha = 0.05$ for two tailed test

** Significant at 0.10 for one-tailed test

*** Significant at $\alpha = 0.05$ for one-tailed test

N for Form II students is 102.

N for Form IV students is 145,

The findings in Table 5.54 show that of the sixteen relationships examined by converting the correlation coefficient, r into t values, nine hypothesises were rejected. Those rejected were as follows:-

i) There is no significant relationship between academic performance and the perception of the use of evaluation in students' Difficulty Analysis among Form IV students (at α = 0.05, tcrit = 1.98, for a two tailed test).

The Form IV students who perceived positively the FDE in finding out students difficulties, performed better than those with a negative perception in academic work.

ii) There is no significant relationship between academic performance and the perception of the FDE in predicting performance in final public national examinations among the Form II students (at α = 0.10, tcrit = 1.29. for one tailed test).

The Form II students who had a negative perception of evaluation in this case had low scores in their academic work.

iii) There is no significant relationship between academic performance and the perception of the FDE in career choosing among the Form II students (at α = 0.05, tcrit = 1.98 for two tailed test).

This implies that students who had a negative perception performed better than those with positive perception.

iv) There is no significant relationship between academic performance and the perception FDE in relation to students' motivation among the Form II students (at α = 0.10, tcrit = 1.29) and Form IV students (at α = 0.05, tcrit = 1.98)

The relationship was positive for the Form II students and negative for the Form IV students. The Form II with positive perception performed better than those with negative perception in academic work. The Form IV students with negative perception performed better than those with positive perception.

v) There is no significant difference between academic performance and the perception of the FDE in enabling students to fit in society while still in school among the Form II and Form IV students (at α = 0.10), tcrit = 1.29). There was a negative relationship, therefore students with negative perception performed better than those with a positive perception.

vi) There is no significant relationship between academic performance and perception of the FDE in relation to obedience analysis, among the Form II students (at α = 0.05, tcrit = 1.98). The students with positive perception of evaluation in relation to obedience analysis performed better than those with negative perception.

vii) There is no significant relationship between academic performance and the perception of the FDE in enabling students to fit in society after graduating from school (at α = 0.10, tcrit = 1.29). The students with a positive perception performed better than those with a negative perception.

It is evident from the findings that there is no significant relationship between academic performance and the perception of the FDE in monitoring the academic progress of the students. Also for the Form IV students, the perception of the FDE in relation to predicting performance in the final national public examinations, career choosing, obedience analysis and enabling students to fit in society after school are not significantly related to academic performance.

Generally, the relationship between academic performance and perception of FDE is low.

HYPOTHESIS 55

There is no significant relationship between academic performance and the perception of the source dimension of evaluation (SDE) among the Form II and Form IV students.

The summary statistics used to test the null hypothesis for significance is presented in Table 5.85. The findings show that of the Twelve relationships examined

only four null hypotheses were rejected and eight accepted. Those rejected are:-

i) There is no significant relationship between academic performance and the perception of the teacher as a component of the source dimension among the Form II students ($t = 3.48$, $df = 99$, $\alpha = 0.05$, $t\ crit = 1.98$) The Form II students who perceive the teachers positively as a source of evaluation perform better than those with negative perception.

ii) There is no significant relationship between academic performance and the perception of parents as a component the source of dimension of evaluation ($t = 1.42$, $df = 99$, $\alpha = 0.20$, $tcrit = 1.289$) among the form II students.

TABLE 5.85

The Correlation Coefficient (r) Values and t - values used to test Hypothesis 55 for significance.

		Components of source of dimension			
		Teachers	Parents	Government Officers	Students
Form II Students	r	0.33	0.141	-0.04	0.007
	t	3.48*	1.42*	-0.40	0.072
Form IV Students (Mock)	r	0.043	-0.09	-0.078	0.14
	t	0.45	-0.93	-0.80	-1.45***
Form IV Students (K.C.S.E)	r	0.033	-0.011	-0.21	-0.02
	t	0.389	-0.132	-2.57***	-0.24

Form II students N = 101

Form IV students N = 107 (for mock exam)

N = 145 (for K.C.S.E)

* Significant at α = 0.05

** Significant at α =0.20

*** Significant at α = 0.01

That is, the Form II students who perceive parents as a positive source of evaluation perform better than those with negative perception.

iii) There is no significant relationship between academic performance and the perception of Government education officers as a component of the source dimension of evaluation (t = -2.57, df = 143, α = $\geq$ 0.01 tcrit = 2.617). This means that the Form IV with positive attitude towards the evaluation of government officers are likely to

perform poorly compared to those with negative perception in the National Public Examinations.

iv) There is no significant relationship between academic performance and the perception of students as a component of the source dimension of evaluation (t = -1.45, df = 105. tcrit = 1.289, α = 0.20) among the Form iv students in the mock examinations. This means that the Form IV students who perceive students as a positive source of evaluation perform poorly in the mock examination.

Generally the relationship between academic performance and the perception SDE is low.

Finally during the data analysis, the evaluation schema of the students was determined. This was done by testing hypothesis 56 for significance.

HYPOTHESIS 56

The nature of the evaluation schema of students in secondary schools is trivalent.

The hypothesis was tested for siginificance using a chi-square and was rejected (X^2 = 8.71, df = 6, X^2 crit = 8.56, P≥ 0.20). The schema strength derived from (tables 5.83, 5.84 5.85) and summarised in table 5.86 shows that the ambivalent nature of the evaluation had the highest frequency of 35 (41.7%). Therefore the nature of the evaluation schema of students in secondary schools is ambivalent.

TABLE 5.86

A schema strength Table showing the Frequencies of +, -, 0 in the Evaluation Schema of students in secodary schools.

Nature of Evaluation Schema	Instrumental dimension	Dimension of Fuctional Dimension	Evaluation Objectival Dimension	Source Dimension	Total
Positive (+)	4	5	12	2	23
Ambivalent (0)	7	7	19	2	35
Negative (-)	3	4	11	8	26
Total	14	16	42	12	84

5.5 CONCLUSION

The findings from the study did not support the myth that students in boarding schools perform better in public examinations than the students in day schools. The findings were also in disagreement with the popular belief that students in single schools perform better in public examinations than students in mixed schools.

The lack of significant difference between boarding and days schools, and mixed and single schools might be attributed to similarity in the availability of facilities and quality of teachers in these different types of school setting.

The study found that there were significant differences in academic performance among students due to gender, age, urban and rural school differences and private and public school differences. The Male students were

academically superior when compared to female students; this is in agreement with the findings of Maritim (1985). The inferior academic performance of the female students might be due to cultural practices which inhibit females from excelling in school academic work and their younger age schoolentrance which results in work overload and leading to stress and poor academic performance.

Students in urban schools were found to perform better than students in rural schools. The difference can be attributed to differences in conducive learning environment in the two school settings. The schools in the urban areas enjoy the services of the Kenya National Library Services where there are no books in the schools; the schools in rural areas do not benefit from such public facilities. The poor performance in private schools can be attributed to lack of facilities and low quality of teachers, this is in agreement with Eshiwani's (1986) findings.

A strong positive and significant relationship was found to exist between performance in mock examinations and public National Examinations. This can be due to the importance attached to performance in mock examinations in relation to its setting, marking and purpose of predicting future performance in the final national public examinations in schools.

There was a significant positive relationship between academic performance and the perception of the school environment for the form IV students and not form II students. This implies that students who perceive the

school environment positively are more likely to perform acdemically better than those who perceive the school environment as being negative. Among the form II students, probably the concept of appreciating the importance the role environment plays in influencing academic performance has not yet developed significantly.

There was no significant relationship between academic performance and perception of the importance of Public national Examination in education. However there was a very weak negative relationship for the form IV students and a very weak positive relationship for the form II students. This implies that the perception of the importance of public examinations is not related to the actual academic performance.

There was a negaitve significant relationship between acdemic performance and teachers' comments on students' performance with respect to the form IV students. The relationship was not significant for the form II students. This implies that students who regard the teachers' comments highly are likely to perform poorly. This is in dissonance with self-fulfilling prophecy or the pygmalion effect, where positive teachers' comments on the student's behaviour or work is supposed to enhance academic performance. The pygmalion effect was supported by the work of Maritim (1980 and 1984), and Pilling and Pringle (1978). Lack of support in this study might be due to the method used by teachers to administer punishment and reinforcement, that are not in consonant with the believes

of students in relation to academic work. From a visit to one of the best schools the researcher witnessed that , the teachers were sharply divided on how to reward or punish students; this disagreement among teachers can lead to students losing confidence in teachers' comments.

There was no significant relationship between academic performance and the perception of class assignments for both form II and formIV students. This might be due to the low degree of importance which is attached to class assignments by both students and teachers.

There was a significant negative relationship between acdemic performance and perception of class projects, for both form II and form IV students. This implies that students who have high positive perception of the importance of class projects are likely to perform poorly in the actual academic work. This relationship can be attributed to the differences in the testing which exist during project work and the extreme controlled testing used to report on the acdemic achievement.

There is a stress producing atmosphere during the controlled testing which is used to report on the academic achievement. There is a stress producing atmosphere during the controlled testing in the mock examinations and periodic tests than in the project work.

The results show that students between the ages of 13 and 23 years experience and evaluation syndrome. This might be due to the stress experienced by students due to the various elements of IDE.

There was a significant positive relationship between academic performance and perception of the importance of mock examinations for the form II students, but it was not significant for the form IV students. This may be due to the absence of a significant personal teacher-student interaction aimed at discussing and finding solutions to students' problems related to academic work. The weak positive relationship for the Form IV students indicated that students with a positive perception of FDE in monitoring academic progress are more likely to perform better than those with negative percept.

There was a significant positive relationship between academic performance and the perception of FDE in finding out student's difficulties, for the form IV students only. As far as form II students were concerned, there was only a very weak positive relationship. This implies that probably the recognition that evaluation is used to find out students' difficulties increases with level of education. The students who positively recognise the fact that the teachers' evaluation is used to find out their difficulties are more likely to perform better than those with negative perception.

The study found a significant positive relationship between academic performance and perception of FDE in predicting future performance, for the form II students but not the form IV students. For the form IV students there was only avery weak positive relationship. This generally implies that students who perceive positively the teachers'

assessment as serving the purpose of predicting future performance in the national public examinations are more likely to perform better than those with negative perception, but this trend decreases with increase in the level of education. This can be attributed to the more strict and firm supervision taken by teachers in relation to the academic work of form IV students as compared to the lower classes. This was demonstrated by the difference in performance in mock and public examinations by the students performing better in the public national examinations than in the mock examinations.

There was a significant negative relationship between the perception of the functional value of the teachers' evaluation in enabling students choose their careers and academic performance for the form II students, but a very weak positive relationship for the form IV students. This implies that the recognition that teachers' evaluation can be used in helping one to choose a career is realised late at the end of the four year course of secondary education. Otherwise, most students do not associate their good academic performance with the type of career they are interested in. This can be attributed to poor career guidance and counselling services that are provided in schools to the students.

There was a significant positive relationship between the perception of students' motivation as a component of the functional dimension of evaluation and academic performance for the form II students, but a negative

significant relationship for the form IV students. This implies that the teachers' feedback to the students only encourages students at lower levels. The functional value of evaluation as a motivating factor in a learning situation decreases with increase in the level of education. This can be attributed to the more aggressive approach taken by teachers when dealing with the academic affairs of the form IV students than at the lower levels.

The study found a significant relationship between academic performance and the perception of helping students to fit in society while still in school as a component in the functional dimension of evaluation, for both the form II and IV students. This implies that regardless of the level of education, students who perceive the teachers' assessment methods as enabling students to fit in society while still in school perform poorly in academic work when compared to those with a negative perception. This is in agreement with the teachers' and students' ratings of this component in the functional dimension of evaluation. It was rated as one of the components with low importance.

There was a positive significant relationship between acdemic performance and the perception of obedience analysis as component, in the functional dimension of evaluation, for the form II students but not for the form IV students. For the form IV students, there was a very weak negative relationship. This implies that the importance attached to obedience in relation to school

rules as an enabling requirement for good academic performance decreases as the level of education increases. This finding supports cases where students do not behave in accordance with the school rules but perform well academically.

There was a significant positive relationship between academic performance and the perception of the functional value of the teachers assessment in enabling the students to fit in society after graduation for the form II students but not for the form IV students. There was a very weak relationship for the form IV students. This implies that the perceived importance of evaluation in finding out the link between the commuinity and school curriculum decreases as the level of education increases. This can be attributed to the possible descrepancy between the educational objectives and the requirements in the society.

Of the the four components of the source dimension of evaluation, it was only the teachers who were consistently and positively related to academic performance, but was only among the form II students that the relationship reached a significant level. This implies that the positive image of the teacher as a source of evaluation decreases among the students with increase of the level of education. On the other hand, the Government education officers as a component of source dimension was consistantly and negatively related to academic performance but only reached a significant level among the form IV students.

At a lower level of education (form II) the parents as a source of evaluation are positively and significantly related to academic performance but not a higher level (form IV). This might be due to the tendance of parents, not monitoring closely the academic development of children at higher level and thus the students gaining some independence form their parents. At higher level there is a weak negative relationship between academic performance and the perception of parents as a component in the source dimension of evaluation.

The ambivalent nature of the students' evaluation schema supports Were's (Daily Nation May 10, 1982 P.6) views that:

> "Young people find it difficult to know the criteria by which they are supposed to be judged when it comes to career and job opportunities since there is a big gulf between theory and the practice, between advertisements and the private consideration which actually influence opportunities and promotions".

This also explains why there is a negative relationship between academic performance and the perception of "students" as a component in the source dimension of evaluation.

CHAPTER SIX

CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

6.0 INTRODUCTION

This chapter presents the conclusions, recommendations and summary based on the results in chapter six.

This study was designed to carry out an investigation on the perception of Evaluation and academic performance. One of its purposes was to investigate the nature of locus of control, perception of school environment and perception of evaluation methods among secondary school students and teachers. Another purpose of the study was to find out if there are significant differences in locus of control, perception of school environment and perception of evaluation methods due to gender, age, type of school and level of education among students.

The third purpose of the study was to investigate the relationship between academic performance and the following among students in secondary schools:
i) Age (ii) Gender (iii) Locus of Control (iv) Level of Education (v) Perception of School environment (vi) and Perception of Evaluation based on the 4-pm.

Fourthly the study attempted to find out if the locus of control, perception of school environment and perception of evaluation among teachers in secondary schools varies due to gender, teaching experience and level of training.

Through data analysis and hypothesis testing the research also sought answers to the following questions:

1. Should students and teachers be held accountable for the consequences of the educational programmes in Kenya?
2. How do students perceive the evaluation system?
3. How do students perceive their abilities in relation to public examinations?
4. What is the nature of the students' and teachers' locus of control and perception of school environment?
5. What is the relationship between perception of evaluation and academic performance?
6. What is the nature of the evaluation schema among students?

6.1 THE NATURE OF LOCUS OF CONTROL, PERCEPTION OF THE SCHOOL ENVIRONMENT AND PERCEPTION OF EVALUATION

The results of the study showed that most of the students had a neutral locus of control. The teachers had also a neutral locus of control. The similarity in locus of control between the teachers and students might be due to the modelling effect from the teachers, that is characterised by uncertainty about causality with respect to self. This implies that there are certain areas or activities in school which the teachers encourage students to be responsible and control and not others. This leads to the general locus of control with respect to school activities to be neutral.

When the nature of the perception of the instrumental dimension of evaluation (Evaluation methods) and perception

of school environment were considered, most of the teachers and students had neutral perception. They were undecided about the role of instrumental dimension of evaluation in education and the effect of school environment on school achievement. The uncertainty about the attitudes of students and teachers towards the role of instrumental dimension of evaluation in education can be ascribed to the fact that some evolutional decisions are made without their consultation. The uncertainty about the effect of school environment might be due to their inability to control and exploit the school environment to enhance achievement of the individual goals while at school.

The results concerning the perception of the functional dimension of evaluation with the teacher as the source, indicated that monitoring of the academic progress was the main purpose of the teachers assessment. This is in agreement with Wekesa (1993) findings, as one of the main factors that enhances academic achievement. According to the findings the other important functions of teachers' assessment is to find out the students' difficulties and predicting performance in the final Public Examinations, this is in agreement with Wekesa (Ibid). This study also revealed that the teachers' assessment plays the important function of motivating the learners. Similar attitudes were demonstrated by both the students and teachers with respect to monitoring academic progress, difficulty analysis, predicting performance in national examinations and motivating the students.

Interestingly the teachers were mainly of the view that the 'teachers' assessment' does not enable the learners to fit in society while in school and after school, and does not address itself to the issue of students' obedience. Positive attitudes were expressed by students with respect to obedience assessment; they were not quite sure whether teachers' assessment enables them to fit in the society while in school, but had a positive attitude towards evaluation in enabling them to fit in society after school.

The results on the perception of the functional dimension of evaluation may be attributed to the academic and examination oriented curricula in schools. This is why monitoring academic progress, finding out students' difficulties, predicting performance in national examination and students' motivation were clearly and highly perceived positively when compared to fitting in society, obedience analysis and career choosing.

The findings on the perception of the source dimension of evaluation indicated that teachers perceive themselves as the best source of evaluation when compared to students, parents and Government education officers; this supports Kasouf (1984) report that teachers perceive parents as poor sources of evaluation. The teachers rated students as sources of evaluation higher than the government officers. The students' perception of the source of evaluation dimension followed a similar pattern to that of teachers. The lack of confidence by teachers and students in the

assessment carried out by government officers might be due to the aggressive and diminutive approach taken by these officers in relation to school activities. For example the banning of Mock examinations unless teachers sort permission from the Ministry of Education (1987), and Ministry of Education arguing that teachers showed ignorance by their decisions and evaluation, as stated by Sitima (1985).

6.2 ANSWERS TO RESEARCH QUESTIONS

Ensuing from the findings the answers to the questions raised during the research were as follows:-

i) Should students and teachers be held accountable for the consequences of the educational programmes?

The answer to this question was no, because, although the teachers and students felt that they were good sources of evaluation (Hypotheses 36 and 37) they were undecided as whether or not, to be responsible for the evaluation outcome (Table 5.1). The teachers and students felt that parents and the Ministry of Education officials should not be given priority in decision making, in matters related to evaluation.

ii) How do teachers and students perceive the evaluation system?

Generally the teachers and students were not quite sure about the role of evaluation in education .

Among the students the perception of IDE was significantly influenced by type of school (Boarding/Day, public/private/public-assisted, urban/rural) and gender. However, age, level of education and mixed/single differences among students did not significantly influence the perception of IDE. Also students between the ages of 13 and 23 years experience an evaluation syndrome (fig.5.2)

Among the teachers there were no significant gender and teaching experience differences in the perception of IDE. Nevertheless, the untrained teachers had a significant high positive perception of IDE than the trained teachers.

In the perception of FDE among students, there were no significant differences due to gender (Table 5.42), level of education (Table 5.57), age and type of school (boarding/day). The perception was significantly influenced by urban/rural, mixed/single and public/private/public assisted differences in schools. Among the teachers there were no significant differences due to gender, level of training and teaching experience. Even though the students had a more significant positive perception FDE than teachers (Table 5.44).

With respect to the perception of SDE, there were no significant differences among students due to type of school, gender, age and class level. It was only among teachers that gender had an influence, with the male teachers being more positive. The students were also significantly more positive than the teachers (Table 5.74).

iii) How do students perceive their abilities in relation to public examinations?

In this case, the students were undecided as to whether their performance was determined by luck or by their individual effort.

iv) What is the nature of the students' and teachers' locus of control and perception of school environment?

The teachers and students, both had a neutral locus of control (Table 5.1). They were also undecided about the influence of school environment on their activities. Among the students, the self-perception and perception of school environment was influenced by type of school (Tables 5.6, 5.7, 5.10, 5.11 and 5.5.17), level of education (Table 5.15) and age (Table 5.8,5.9) but not by gender differences (Table 5.13).

When the teachers were considered it was only gender that influenced the self-perception and perception of school environment, but not teaching experience and level of training. However, the teachers felt that self-perception (locus of Control) was more important than school environment as a factor influencing academic achievement (Table 5.18).

v) What is the relationship between perception of evaluation and academic performance among students?

The relationship between perception of evaluation and academic performance was found to be generally weak (Tables

5.83, 5.84 and 5.85). The 36 correlation coefficient values ranged between r = -0.54 and r = 0.33. This relationship was influenced by type of school (urban/rural, public/private/public-assisted), age and gender. Differences due to day/boarding and single/mixed did not significantly influence the relationship.

The relationship between the students' perception of the tetrahedral pyramidal model of evaluation (4-pm) and academic performance is weak. From hypotheses 53,54 and 55, the relationship between academic performance and the faces of 4-pm, (IDE, FDE and SDE) is weak. This means the achievement of the base of 4-pm (the objectival dimension) is below average.

The findings of the research indicate that under the prevailing circumstances mock examinations are good predictors of performance in the public examinations (hypothesis 51, r = 0.85).

vi) What is the nature of the evaluation schema among students in secondary schools?

The nature of the evaluation schema was found to be ambivalent (Table 5.85).

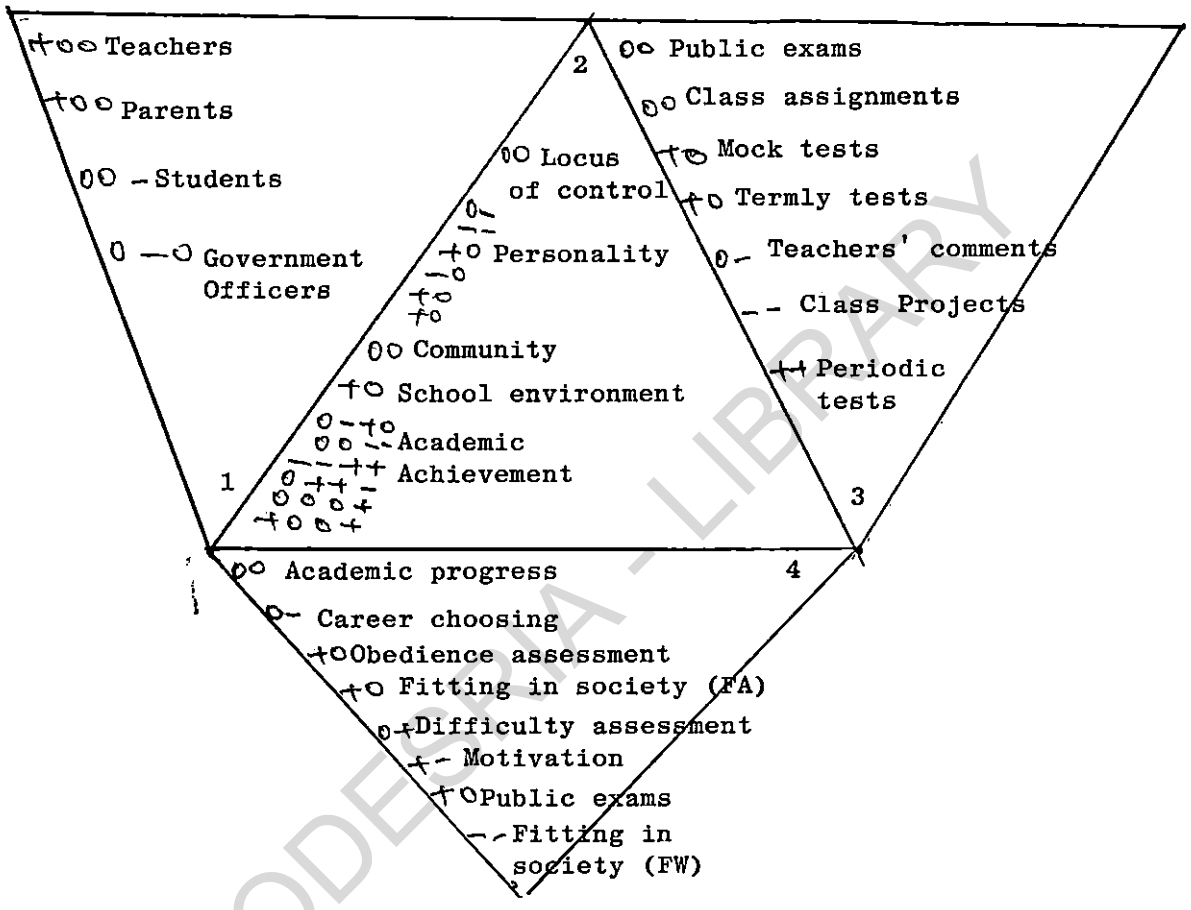
6.3 CONCLUSIONS

If schools are to develop a healthy learning atmosphere that can promote high academic achievement, focus must be on the formal system that include setting goals, values, technology and other resources, structure, policy and feelings. The people in schools (teachers and

students) should develop an understanding between themselves about the purpose of their schools. The team spirit within the school contribute towards a stronger self-evaluation, high productivity and human satisfaction. These can be achieved if there is a common orientation among teachers and students towards the nature of evaluation.

FIGURE 6.1

The evaluation schema of the students in relation to Academic performance in Secondary schools



KEY:

1	=	Source Dimension
2	=	Objectival dimension
3	=	Instrumental dimension
4	=	Functional dimension
+	=	Positive strength
0	=	Ambivalent strength
−	=	Negative strength

This study was designed to carry out an investigation on "the perception of Evaluation and Academic Performance." The findings concerning the relationship between perception of evaluation and academic performance is summarised by the evaluation schema as shown in figure 6.1

The evaluation schema was tested for strength and the results showed that the nature of students' evaluation schema was ambivalent. This shows that there was a general strong dissonance or disequilibrium between perception of evaluation and academic performance. It is necessary to cultivate positive evaluation schema and reduce evaluation syndrome among students in secondary schools if the objectives of education have to be achieved.

The positive evaluation schema and reduction of evaluation syndrome can be promoted by developing self-presentation as discussed by Baumeister (1982), Internal locus of control as proposed by Lefcourt (1976), Borden and Hendrick (1973) and Katkovsky et al (1976). The positive evaluation schema can also be developed by promoting internal locus of control through the reinforcement expectancy principles outlined by Gunars and Reinmans (1971), promoting positive self-concept outlined by Burns (1979) and encouraging positive involvement of parents and teachers in learning process as advanced by Pilling and Pringle (1978), Loranger et al (1982) Topping (1980) and Sharrock (1980).

The poor academic performance reported in Western Province (Kenya) by Eshiwani (1980 and 1986) can be

attributed to the ambivalent nature of the evaluation schema. The ambivalent evaluation schema in this study has been supported by the existence of an ambivalent nature of locus of control evaluation syndrome and undecidedness about the influence of environment on school activities among teachers and students in secondary schools.

There is an association between locus of control and perception of school environment. Teachers and students who have a higher score on the internal locus of control perceive the school environment more positively in relation to school activities than those with low internal locus of control scores. This was true when the two factors were investigated under different school types (private-public, boarding-day, mixed-single, urban-rural) and in consideration of the gender effect. These two factors are also positively associated with a higher academic performance and there is a similarity among teachers and students. Thus the teachers are capable of influencing how students perceive the school environment and their locus of control. The teachers can propagate their influence through:-

i) formulating immediate and long term plans and determine on action plan by involving students so as to develop a shared vision of an excellent school.

ii) promoting and protecting the school values by involving students.

iii) develop a positive school culture that encourages positive relationship among students and teachers.

iv) Monitoring the results and providing feedback to the students with the help of the students themselves.

The data of this study has shown that the mock examinations, termly tests, class assignment and periodic tests are highly valued as components of the instrumental dimension of evaluation but not teachers comments and class projects. This was found to be consistence when differences in school types, gender, level of education, teaching experience and level of training were considered. The study also showed that the students have more positive perception of the instrumental dimension of evaluation than teachers. The teachers should be involved in decision making concerning educational planning and evaluation at National level in order to promote a positive evaluation schema, which they can in turn transmit to the students.

In consideration of the functional dimension of evaluation the study showed that teachers and students perceive positively the importance of monitoring academic performance, students' motivation, difficulty analysis (finding problems of students) and predicting future performance but not career choosing, fitting in society while in school, fitting in society after school and obedience analysis. This was true when differences in gender, level of education, types of school, level of

training and teaching experience were considered. To enhance positive evaluation schema, the affective components of the tetrahedral model should be given higher recognition in evaluation than the current state of affairs.

According to the Gestalt principles of perception which also govern attention, learning and performance, "the whole is greater than the parts." Therefore the various components in the tetrahedral model and their strength in the evaluation schema should be considered as a whole unit when considering their effects on academic performance. Concentrating on specific components or dimension cannot realise maximum academic performance, but the total nature of the evaluation schema should be improved. The more positive it is, the higher the academic performance.

6.4 RECOMMENDATIONS

This study found that there is an association between academic performance, and perception of school environment and locus of control in secondary schools. Students who had significantly higher scores on the locus of control and perception of school environment in urban and public schools also performed better academically. However, the nature of the students' locus of control is ambivalent and therefore it does not positively tally with the positive evaluation schema that can enhance higher academic performance. An attempt should therefore be made by

teachers, parents and Ministry of Education Officers to promote internal locus of control among students so as to enhance higher academic performance.

The study found that the nature of the evaluation schema of students in secondary school is ambivalent and they also experience an evaluational syndrome. The ambivalent evaluation schema and the existence of an evaluational syndrome are not consonant with conducive environment for maximum academic achievement among students. A positive evaluation schema required for higher academic performance can be cultivated by encouraging positive self-presentation, internal locus of control, positive self-concept and positive involvement of parents in the learning process. To achieve this, the study recommends that further researchers should be carried out with the aim of establishing more components in the tetrahedral model of evaluation that can enhance positive evaluation schema and how to improve the positive evaluation schema and how to improve the positive strength of the existing components.

In consideration of the findings of the study, a number of recommendations were made that are useful for the parents, students, education planners, Ministry of Education Officers and educators. The recommendations are :-

i) A study be carried out nationwide with the aim of establishing the nature of the evaluation schema among teachers, students and Ministry Officers and steps

taken to improve the positive strength of the evaluation schema and minimize the evaluation syndrome.

ii) Guidance and counselling services in schools should be carried out with the soul purpose being to encourage the positive strength of the evaluation schema and resolve the evaluation syndrome. An attempt should be made to establish a strong significant positive relationship between guidance and counselling services and positive strength of the evaluation schema.

iii) The school inspectors should ensure that teachers and students in school should develop an understanding between themselves about the purpose of their schools. Their teachers should improve the kind of guidance and support provided in the execution of their duties, so as to enhance their performance and in turn improve on students performance. The teachers should be made to feel better about the conditions of their working place by creating a "positive school climate" of high expectation for staff and students There should be frequent monitoring of results and providing feedback on teachers and students, helping to identify and assist students with learning problems.

iv) Teachers, parents and educators should be aware of how reinforcement procedures in schools can be modelled so that they serve the purpose of promoting the positive strength of evaluation schema and minimize the evaluation syndrome.

v) Teachers and parents should encourage an internal locus of control in schools so as to improve academic achievement of students.

vi) Educators and Government Education Officers should review their approach to solving school problems so that they are perceived positively by students and teachers. This will also contribute towards improving the positive strength of the evaluation schema.

vii) Transactional evaluation should be carried out wherever changes are made in educational curriculum, so that all parties involved can make their contributions towards the change. Through transactional evaluation, parents and students will be more actively involved in making decisions in schools. The teachers can be more involved in making decisions about education than they are at the moment, so as to take their right place in evaluation accountability.

viii) The school environment which in this study include the relationship between school and the surrounding community, availability of facilities (like textbooks, exercise books, libraries and equipped laboratories), inter-relationships among students and teachers, should be improved so that it is in congruence with the students' locus of control, in order to achieve higher academic performance. A positive environment should be established and exploited to promote learning and performance.

ix) Parents should be advised that the age for school entry for boys and girls should be the same since changes in academic performance in secondary schools follow the same pattern as changes in chronological age and locus of control. This will enable the majority of the girls compete favourably with the boys.

x) Students should be directly involved in assessing their academic achievement. This should be done through requesting students propose questions to assess the school programmes or curriculum and then from an array of students' questions, the teachers should build up the final tasks that should be used to assess the competence of students. This will help build up the positive strength of the evaluation schema of students and reduce their evaluation sundrome. This will in turn enable them their right loading in the educational evaluation accountability programs.

xi) Teachers, parents, students, Government officers and the community in general should work as a team in planning and deciding on the components that constitute the tetrahedral model of evaluation (4-pm). This will lead to a positive strength of the evaluation schema and reduce evaluation syndrome which in turn will facilitate the existence of a good design of educational evaluation accountability programmes by considering the following variables:-

a) Input variables or characteristics of learners who enter a particular phase of education. For example their health, age, level of achievement, self-concept and nature of evaluation schema.

b) Surrounding school conditions within which the school operates. For example, community and school conditions.

c) The education process. This may for example include available facilities and methodology.

d) Out-put variables or characteristics of the learners as they emerge from a particular phase of education.

This can help eleviate the fears expressed by Lyman (1971) that many people whose positions seem to give them legitimate access to test results for decision making have little training in test interpretation.

APPENDICES

PERCEPTION OF EVALUATION AND ACADEMIC PERFORMANCE QUESTIONNAIRE

The researcher is in the process of finding out how views of individuals about themselves, the assessment methods and school environment affect students' academic performance. Please assist in this exercise of great importance by filling in these questionnaires. There are no correct or wrong responses.

Please do not write your name in this paper. The information you give will be treated as confidential and will not be used for any other purpose other than for this research.

PART I

Part I consist of questionnaire on self-evaluation and views on public examinations.

APPENDIX A

Indicate your:

i) Class.....

ii) For form II Students :

a) Form I mid-term mean Grade.....

b) Form II mid-term mean Grade .....

iii) For form IV students:

a) Mock mean Grade.....

b) Index No .....

iv) Type of school.....

(e.g. Day, Boarding, Boys, Girls, Public Assisted, Private, Public)

v) Date of Birth ..... Year.....

vi) Gender : Male ( ) Female ( )

by ticking (✓)

APPENDIX B

SELF-EVALUATION SCALE FOR APPROACH TO PROBLEM SOLVING (LOCUS OF CONTROL) QUESTIONNAIRE

The purpose of this questionnaire is to obtain information on how an individual views the problem solving process and events in life in relation to him/her self and external forces.

Each of the following items consists of a pair of possible statements lettered (a) or (b). Please select the one statement for each pair which you more strongly believe in. Circle the letter (a) or (b) of the statement you choose.

EXAMPLE :

(a) Children are in control of what they get from their parents.

(b) Children do not understand why parents do what they do.

In my view, I strongly beleive in (a), therefore, I will circle (a) as shown below.

(a) Children are in control of what they get from their parents.

(b) Children do not understand why parents do what they do.

You can now proceed.

1. (a) I always feel I am in control of what I am doing.

   (b) Even when there is nothing forcing me, I have found out that I sometimes do things I really did not want to do.

2. (a) School activities have little control over me, I can really do what I decide to do.

   (b) School activities have considerable control over me.

3. (a) For any individual being successful, it is a matter of hard work, luck has little or nothing to do with it.

   (b) For any individual being successful, it depends mainly on being in the right place at the right time.

4. (a) In any case, passing examinations has little or nothing to do with luck.

   (b) passing examination depends on the individuals' luck.

5. (a) Students personally determine the outcome of their undertakings.

   (b) In many situations what happens to students is determined by super-natural powers.

6. (a) Students can always control their immediate wishes and not let these wishes determine their total behaviour.

   (b) Students always behave out of their emotional feelings.

7. (a) I always control my immediate behaviour.

   (b) I have no control over my behaviours.

8. (a) In the long run students get the respect and good outcomes of their hard work.

   (b) Unfortunately, because of misfortune or bad luck, the students' work often passes unrecognized no matter how hard they try.

9. (a) With enough effort, students can pass all their examinations.

   (b) Students have no control over the results of their examinations.

10. (a) An individual can do a lot to improve the standard of the school.

    (b) There is very little an individual can do to improve the standard of the school.

11. (a) It is easy for me to avoid social forces that may attempt to have control over me.

    (b) I am affected by social forces which I neither control nor understand.

12. (a) What students get out of school life is always related to how much effort they put into their work.

(b) Quite often a student finds that what happens to him has no relation to what he does, what happens just happens.

13. (a) Students can and should do what they want to do both now and in future.

(b) There is no point in students planning their lives too far in advance because other groups of people in the society will disrupt their plans.

14. (a) Students' misfortunes in school are a result of the mistakes they make.

(b) Many of the unhappy things that happen in the school life of an individual are due to bad luck.

15. (a) For an individual to get a good job, it is a direct result of his or her ability.

(b) Getting a good job or a promotion depends a lot on luck.

16. (a) The idea that teachers are unfair in the way they give grades to students is false.

(b) Most students do not realize the extent to which their grades are influenced by accidental happenings (luck).

17. (a) There is nothing like an unfair test.

(b) Many times, examination questions tend to be unrelated to what is taught.

18. (a) There is direct connection between how hard one studies and the grade obtained in National Examinations.

    (b) It is difficult to understand how the Kenya National Examination Council arrive at grades they give to candidates.

19. (a) I am responsible for all things that I do at school.

    (b) I do not have control over what happens in school.

20. (a) Everybody in the school is responsible for the performance of the school in the National Examinations.

    (b) I do not understand why the school performs the way it does in the National Examinations.

APPENDIX C

VIEWS ON THE ROLE OF PUBLIC EXAMINATIONS IN EDUCATION.

The purpose of this questionnaire is to obtain information on how individuals view the role of public (National) examinations in education.

Read the following statements and decide whether you strongly disagree, disagree undecided, agree and strongly agree. Indicate your feelings by circling (1) for strongly disagree, (2) for disagree, (3) for undecided, (4) for agree and (5) for strongly agree.

EXAMPLE

Examinations are used to identify creativity among students 1 2 3 4 5

I strongly agree with the statement.

I would indicate my feelings as follows:

Examinations are used to identify creativity among students. 1 2 3 4 (5)

You can proceed.

1. The examination measures the amount of knowledge acquired 1 2 3 4 5

2 The examination measures how acquired knowledge is utilized. 1 2 3 4 5

3. The examination measures the quality of skills acquired in schools. 1 2 3 4 5

4. There is enough emphasis on the practical aspect of learning in the examinations. 1 2 3 4 5

5. The examinations are used to find out about the learning progress of students. 1 2 3 4 5

6. Passing the examinations is very important for one to get a good job. 1 2 3 4 5

7. A final examination after eight or four years gives the student enough opportunity to put into practice what

he has learned. 1 2 3 4 5

8. Examinations help to find out the effectiveness of a Teacher . 1 2 3 4 5

9. Examinations give a guide to the needs of students in relation to the type of employment

available 1 2 3 4 5

10. Examination guide teachers to choose good teaching

methods. 1 2 3 4 5

11. Kenya Certificate of Secondary Education does not favour any group of students or schools 1 2 3 4 5

12. Examinations promote equality in the society 1 2 3 4 5

13. The need for passing examinations make pupils to learn what they need for their future life 1 2 3 4 5

14. The stress on passing examinations encourage constructive thinking among the students 1 2 3 4 5

15. The need of pupils are examined in examinations. 1 2 3 4 5

16. Examinations in schools encourage creativity 1 2 3 4 5

17. Examinations are reliable measures of students' ability. 1 2 3 4 5

18. Examination summarise everything about the progress of a student to a useful single mark or grade. 1 2 3 4 5

19. The use of examinations makes it clear that learning takes place throughout the life of an individual. 1 2 3 4 5

20. Examinations demand enough materials from the candidates within appropriate time. 1 2 3 4 5

PART III

Part II consists of questionnaires on views on school environment and evaluation methods used in secondary schools.

APPENDIX D

VIEWS ON SCHOOL ENVIRONMENT AS A FACTOR IN DETERMINING THE PERFORMANCE OF STUDENTS IN SCHOOL QUESTIONNAIRE

The purpose of this questionnaire is to obtain information on how individuals view the school environment as one of the factors that affect the performance of students in school.

Read the following statements and decide whether you (1) strongly disagree (2) Disagree, (3) Undecided, (4) Agree, (5) Strongly agree.

Indicate your responses by circling (1) for strongly agree, (2) Disagree, (3) Undecided, (4) Agree, (5) for strongly agree against each statement.

EXAMPLE

The sitting arrangement in the classroom affects the learning process 1 2 3 4 5

I agree with the statement, therefore I will indicate my response by circling 4 as follows.

The sitting arrangement in the classroom affects the learning process. 1 2 3 (4) 5

You can now proceed.

1. What is contained in the secondary School Syllabuses is relevant to the activities of people who leave around our school. 1 2 3 4 5
2. People who stay around our school can directly benefit from what is taught in the school. 1 2 3 4 5
3. Our school has enough supply of class text books. 1 2 3 4 5
4. Our school has enough exercise books or writing materials. 1 2 3 4 5
5. Our library has enough books. 1 2 3 4 5
6. Our school laboratories have the necessary facilities. 1 2 3 4 5
7. The marriage ceremonies of people who live around school affect the school activities. 1 2 3 4 5
8. The circumcision ceremonies around our school affect the school activities. 1 2 3 4 5
9. The comments about the students by people in the surrounding community affects the performance of students in the school. 1 2 3 4 5
10. The agricultural activities around our school affect the school performance. 1 2 3 4 5
11. The customs and beliefs of people around our school affects the school activities. 1 2 3 4 5
12. The relationship between the school and the surrounding community affects the performance of the students. 1 2 3 4 5

13. The relationship among students affect their performance in school. 1 2 3 4 5

14. The relationship among the teachers affect performance of the students in the school. 1 2 3 4 5

APPENDIX E

QUESTIONNAIRE ON EVALUATION METHODS/AIMS IN SECONDARY SCHOOLS

The purpose of this questionnaire is to obtain information on how people feel about the assessment methods used in secondary schools.

NOTE

i) Teachers' comments: Refers to the comments made by the teacherS on students' work or any activity at school or character.

ii) Class Assignments : Refers to class work which is given as home work by the subject teacher or done during the lesson by the individual student.

iii) Class projects: Refers to work which is given by the teacher to the students and the students have to work in groups, either in the classroom or outside the classroom.

iv Teacher-made tests are tests organised by the subject teacher (periodic tests):

Are tests planned and administered by the subject teacher to assess particular topic (s) that has been taught.

v) End-term tests: Are tests administered by the school to mark the end of a particular term.

vi) Mock Examinations (Tests) : Are examinations organized by individual schools or a group of schools and administered to students in the examination class, for example Form IV in secondary schools.

vii) Government Officers : This refers to the Ministry of Education Officers who act as agents of the government in schools. This does not include teachers.

Read the following statements about methods/aims of testing and score or rate each method/aim. Give the method/aim a score of (1) if you strongly disagree, (2) if you Disagree, (3) If Undecided, (4) if you Agree and (5) if you strongly agree. Indicate your score by circling the score against each method or aim.

EXAMPLE

Rate the following methods of testing nursery children according to their importance in measuring creativity.

Songs 1 2 3 4 5

Making Models 1 2 3 4 5

Play 1 2 3 4 5

Counting numbers 1 2 3 4 5

I strongly agree with making models, agree with play, strongly disagree with counting numbers and Undecided about the assessment using songs: my response would be indicated as follows:-

Songs 1 2 (3) 4 5

Making models 1 2 3 4 (5)

Counting numbers (1) 2 3 4 5

Play 1 2 3 (4) 5

You can now proceed.

1. Rate the following methods of testing students, according to their importance in relation to the students' final achievement in school.

Teachers' comments 1 2 3 4 5

Class assignment 1 2 3 4 5

Class projects 1 2 3 4 5

Mock examinations 1 2 3 4 5

End of Term Tests 1 2 3 4 5

Teacher-made tests organised by the subject teacher 1 2 3 4 5

2. Rank the following methods of assessment according to their influence on teaching methods used by teachers.

End of term tests 1 2 3 4 5

Teachers' comments 1 2 3 4 5

Class assignments 1 2 3 4 5

Class projects 1 2 3 4 5

Mock examinations 1 2 3 4 5

Teacher-made tests organised by the subject teacher 1 2 3 4 5

3. Rank the following methods of assessment according to how you think they effectively measure the amount of knowledge acquired.

End term tests 1 2 3 4 5

Teachers' comments 1 2 3 4 5

Class assignments 1 2 3 4 5

Class projects 1 2 3 4 5

Mock examinations 1 2 3 4 5

Teacher-made tests organised by

the subject teacher 1 2 3 4 5

4. Rank the following methods of assessment according their efficiency in taking into account the needs of the students:

End term tests 1 2 3 4 5

Teachers' comments 1 2 3 4 5

Class assignment 1 2 3 4 5

Class projects 1 2 3 4 5

Mock examinations 1 2 3 4 5

Teacher-made tests organised by

the subject teacher 1 2 3 4 5

5. Rank the following methods of assessment according their usefulness in encouraging creativity among students:

Teachers' comments on the students work 1 2 3 4 5

End term tests 1 2 3 4 5

Class assignment 1 2 3 4 5

Class projects 1 2 3 4 5

Mock examinations 1 2 3 4 5

Teacher-made tests organised by

the subject teacher 1 2 3 4 5

6. Rate the following according to importance of the assessment methods in predicting the performance of students in the final National Examinations:

Teachers 1 2 3 4 5

Parents 1 2 3 4 5

Government Education Officers 1 2 3 4 5

Students themselves 1 2 3 4 5

7. Assessment methods used by teachers in school are mainly for:

Finding out the academic progress of the students. 1 2 3 4 5

Find out the difficulties of the students. 1 2 3 4 5

Predicting the performance in National Examinations. 1 2 3 4 5

Helping students to choose their careers. 1 2 3 4 5

Motivating students to work harder. 1 2 3 4 5

Helping the students fit in the out of school community while in school. 1 2 3 4 5

Find out obedient students. 1 2 3 4 5

Helping students fit in the society after completing school. 1 2 3 4 5

Thank you for your co-operation.

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