EFFECTS OF PRAISE AND REPRIMAND ON ACADEMIC PERFORMANCE OF EXTRAVERTS AND INTROVERTS IN KISWAHILLI. THE CASE OF GITURU SECONDARY SCHOOL

BY

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2005
DECLARATION

This thesis is my original work and has not been presented for a degree in any other University or any other award.

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We confirm that the work reported in this thesis was carried out by the candidate under our supervision, and with our approval as University Supervisors.

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This thesis is dedicated to my loving parents; Mr. Duncan Kiiru and Mrs Jane Waceke,
for their sacrifice to educate me.
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ABSTRACT

The aim of the study was to investigate the effects of praise as opposed to those of reprimand on the learning of Kiswahili in adolescent extraverts and introverts, and, to determine how these effects compare to the effects found in the control group that was not given these treatments.

A random sample of 96 subjects was used and half of the subjects were extraverts and the other half were introverts.

A 3 x 2 factorial design was adopted for this study. This was to find out whether the three levels, namely, praise, reprimand and control group (no treatment group) would interact with the two types of personality namely extraverts and introverts, to affect learning performance in Kiswahili.

Eysenck Personality Questionnaire was used to measure extraversion-introversion tendencies. Written comments were used to effect praise or reprimand treatments, and control groups were neither praised nor reprimanded: they simply received equivalent amount of practice alone. Kiswahili Recall Tests were used to measure the academic performance of extraverts and introverts.

It was found that both praise and reprimand were equally effective in motivating the academic performance of extraverts and introverts. Moreover, the performance of introverts was significantly higher than that of most control groups (no praise, no
reprimand). Pair-wise t-tests confirmed that the introverts (Praised and reprimanded) did differ significantly from the controls at p≤.05 level of significance.

Extraverts seem to differ from introvert when they are in the control group. They do not seem to suffer so much performance difference as is found when introverts are in the control group. This is reflected in the findings obtained from pair-wise t-test in the main null hypotheses two (H02), three (H03), five (H05) and six (H06).

The findings of the present study which was done with adolescent extraverts an introverts to some extent support findings of previous related studies done with children.

In the post hoc hypotheses, the general finding was that the various treatments (praise and reprimand) produced higher scores than the control groups. This is reflected in post hoc hypothesis three (H03), six (H06) and eight (H08), and these findings can also be explained in terms of positive or negative reinforcement effects enhancing performance in these treatment groups.

The only exception to this general finding was obtained when comparing introverts praised and extraverts in the control group (H07). Here the difference between the treatment and the control group though in the right direction, was not statistically significant. This finding was explained in terms of the extraverts in the control group having an inner supply of motivation (intrinsic motivation) hence, their scores did not fall too far below those of the treatment group, hence, the non-significant differences.
However, where comparisons were between two treatment groups, non significant differences were obtained. This is reflected in post hoc hypotheses one (Ho$_1$), two (Ho$_2$), four (Ho$_4$) and five (Ho$_5$), and this finding makes sense in terms of the equality of both praise and reprimand (positive and negative) effects in both personality types.

Finally, where comparisons were made between two control groups, non significant differences were obtained as expected as seen in post hoc hypothesis nine (Ho$_9$).
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

A lot of research work has been done in the area of motivation using animals and human beings as subjects. Slavin (1997) defines motivation as an internal process that activates, guides and maintains behaviour over time, and that high level of motivation can never be sufficient condition for human achievement, but it's a necessary one.

Extrinsic and Intrinsic motivation defined

According to Travers, Elliott and Kratochwill (1993) intrinsic motivation means that students themselves are internally motivated to learn in order to achieve a specific objective like performing well in examinations whereas extrinsic motivation is where externally oriented methods are used in teaching subject matter that also happen to be of no interest or is complicated. In such a case, students may be demotivated and thus the need for external intervention. In this study, our focus will be on the variables that seem to affect extrinsic motivation.

In a school situation, the various variables of extrinsic motivation that have been studied include; “Praise and blame” (Hurlock, 1925., Stevenson & Snyder, 1960., Willcut & Kennedy, 1963., and Vega, 1964), “encouragement and discouragement,” (Gates & Rissliland 1923., and Tuckman, Bruce & Thomas 1991), “repeated praise and blame on academic performance of extraverts and introverts” (Forlano & Axelrod, 1937., Thompson and Hannicutt, 1944., and Kent, 1957), and locus of control” (Brenda, 1998).
In teaching-learning processes, teachers are known to use praise and reprimand to enhance students learning and academic performance. However, students personality types of extraversion-introversion is rarely taken into consideration when teachers make use of praise and reprimand. Some teachers are known to make use of insulting comments such as “silly”, “fool” in the name of motivating their students to learn. There are also teachers who neither give praise nor reprimand as a form of feedback to their students. In this study, we shall focus on the question of whether personality types of the students interact with mode of extrinsic motivation, particularly praise as opposed to reprimand to enhance student academic performance.

**Effects of Praise and Blame: Findings of previous studies**

Earlier studies such as those of Hurlock, (1925), used variables of praise and reproof to find out their effects on arithmetic performance and found out that arithmetic performance of the praised group was significantly better than in the other groups. It was followed by that of reproved, ignored and lastly by that of the control group, who were neither praised nor reproved.

Willcut and Kennedy, (1963), found out that the effects of praise, blame and control were quite consistent regardless of subjects differences in age, intelligence, sex, race, social class and school. They found that reproof lowered performance while praise resulted in higher increase in performance than that resulting from practice alone.
Stewart and White, (1976), investigated the effects of praise in form of teacher comments and letter grades on student’s performance and found out that student's academic performance was enhanced more by assigning a letter grade followed by encouraging teacher comments.

Travers, (1993), points out that praise and blame make people feel good or bad about themselves. Positive adults attention enhances students self concept or self worth and thus motivates students to high academic performance while blame may produce anxiety which interferes with normal learning leading to poor academic performance.

Morris, (1979), notes that the basic differences between extraversion and introversion lies in the fact that in the latter, a person’s preference for attending to inner world of subjectivity with an emphasis on reflective, introspective and cognitive activities is the focus of attention, whereas, in the former, a preference for attending to outer world of objective events with an emphasis on active involvement in the environment dominates.

In an early study, Forlano and Axelrod, (1937) findings indicated that introverts compared to extraverts respond more readily to blame after first application, but when it’s intensified, extraverts produce larger gain in performance. Etraverts are more responsive to one application of praise than introverts, but with the second application of praise, introverts slightly surpass the performance of extraverts. Their conclusion was that blame as a form of motivation is on general more effective than praise or indifference. Thus, a differential personality effect, depending on type – introvert or extravert was noted to interact with praise or blame to affect performance.
Thompson and Hannicutt (1944) found out that:

(i) When extraverts and introverts are grouped together, praise and blame are equally effective in motivating work achievement of fifth grade pupils than no external incentives.

(ii) If repeated for five times, enough praise increases work output of introverts until it’s significantly higher than of introverts who are blamed or extraverts who are praised.

(iii) If repeated for five times, enough blame increases work output of extraverts until it’s significantly higher than that of extraverts who are praised or introverts who are blamed. This study also provided further support to these interaction effects.

Kent (1957) found out that both praise and blame, as incentives were better than none for the blind and sighted children except for the public school blind, where there was no difference between incentives and control. Praise was found to be more effective than blame regardless of the personality types of the sighted and blind children.

**Problems with earlier studies**

So far, studies on the use of praise and blame on extroverts and introverts have yielded inconsistent results. For example, some studies have found out that if repeated for a number of times, enough praise increases work output of introverts until it’s significantly higher than of introverts who are blamed or extroverts who are praised. On the other hand, if repeated for a number of times, enough blame increases work output of
extraverts until it's significantly higher than that of extraverts who are praised or introverts who are blamed. (Forlano & Axelrod, 1937., Thompson & Hannicott, 1944).

A slightly different finding was reported by Kent, (1957) who found out that both praise and blame were better than none for the blind and sighted children. However, praise was found to be more effective than blame regardless of the personality types of visual status.

One problem with the above studies is that they are not very comparable in terms of various variables and the controls used in the studies. Another problem with the above studies is that they have exclusively focused their attention on children. It is not clear whether the findings reported would apply to adolescents. Yet, another problem with the previous studies is that activities have been varied for example, arithmetic and intelligence tests. Also, external incentives were varied for example, verbal praise and reprimand. It is not clear what effects these variations had on performance. The last problem with the previous studies is that the comparisons that were made between various groups were limited.

1.2 Statement of the Problem

Having taken into account the shortcomings of the above studies, an attempt was made to come up with a study that could compare the effects of various personality types of extraversion and introversion and motivational variables of praise and reprimand.

In this study, the variations noted in the previous studies are controlled for using one activity (learning Kiswahili), to measure performance and one extrinsic source of motivation to facilitate performance: use of written comments.
In this study, a wide range of comparisons between personality types of extraversion – introversion and motivational variables of praise and reprimand are made and how these affect academic performance or relate to achievement.

1.3 Main research questions

The following were the main research questions which were formulated and an attempt was made to come up with answers for them in this study. These are:

i) Is there a difference in academic performance between extraverts who are praised and extraverts who are reprimanded?

ii) Is there a difference in academic performance between extraverts who are praised and extraverts who are in control group? (no treatment group)

iii) Is there difference in academic performance between extraverts who are reprimanded and extraverts who are in control group? (no treatment group)

iv) Is there a difference in academic performance between introverts who are praised and introverts who are reprimanded?

v) Is there a difference in academic performance between introverts who are praised and introverts who are in control group? (no treatment group)

vi) Is there a difference in academic performance between the introverts who are reprimanded and introverts who are in control group? (no treatment group).
1.4 Post hoc research questions

The post hoc research questions were:

(i) Is there a difference in academic performance between extraverts who are praised and introverts who are praised?

(ii) Is there a difference in academic performance between extraverts who are praised and introverts who are reprimanded?

(iii) Is there a difference in academic performance between extraverts who are praised and introverts who are in the control group (no treatment group)?

(iv) Is there a difference in academic performance between extraverts who are reprimanded and introverts who are praised?

(v) Is there a difference in academic performance between extraverts who are reprimanded and introverts who are reprimanded?

(vi) Is there a difference in academic performance between extraverts who are reprimanded and introverts who are in the control group (no treatment group)?

(vii) Is there a difference in academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised?

(viii) Is there a difference in academic performance between extraverts who are in the control group (no treatment group) and introverts who are reprimanded?

(ix) Is there a difference in academic performance between extraverts who are in the control group (no treatment group) and introverts who are in the control group?
1.5 Main objectives of the study

The following were the main objectives of the study:

(i) To find out whether there is a significant difference in academic performance between extraverts who are praised and extraverts who are reprimanded.

(ii) To find out whether there is a significant difference in academic performance between extraverts who are praised and extraverts who are in the control group (no treatment group).

(iii) To find out whether there is a significant difference in academic performance between extraverts who are reprimanded and extraverts who are in the control group (no treatment group).

(iv) To find out whether there is a significant difference in academic performance between introverts who are praised and introverts who are reprimanded.

(v) To find out whether there is a significant difference in academic performance between introverts who are praised and introverts who are in the control group (no treatment group).

(vi) To find out whether there is a significant difference in academic performance between introverts who are reprimanded and introverts who are in the control group (no treatment group).
1.6 Post hoc objectives of the study

The post hoc objectives of the study were as a result of many unanswered questions in the study. The following were the post hoc objectives of the study:-

i. To find out whether there is a significant difference in academic performance between extraverts who are praised and introverts who are praised.

ii. To find out whether there is a significant difference in academic performance between extraverts who are praised and introverts who are reprimanded.

iii. To find out whether there is a significant difference in academic performance between extraverts who are praised and introverts who are in the control group (no treatment group).

iv. To find out whether there is a significant difference in academic performance between extraverts who are reprimanded and introverts who are praised.

v. To find out whether there is a significant difference in academic performance between extraverts who are reprimanded and introverts who are reprimanded.

vi. To find out whether there is a significant difference in academic performance between extraverts reprimanded and introverts who are in the control group (no treatment group).

vii. To find out whether there is a significant difference in academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised.

iii. To find out whether there is a significant difference in academic performance between extraverts who are in the control group (no treatment group) and introverts who are reprimanded.
To find out whether there is a significant difference in academic performance between extraverts who are in the control group and introverts who are in the control group.

1.7 Purpose of the study

The purpose of this study was to investigate the effects of praise as opposed to those of reprimand on learning Kiswahili in adolescent extraverts and introverts, and to determine how these effects compare to the effects found in the control group that was not given these treatments.

1.8 Significance of the Study

The Kiswahili teachers will learn certain strategies of motivating the learning and the performance in Kiswahili.

The Kiswahili teachers will make the teaching of Kiswahili interesting and thus enhancing its performance.

1.9 Basic Assumptions of the Study.

It was assumed that:-

i) The variables under study were related.

ii) The researcher's two months of teaching as he conducted his experiment would minimize threat of artificiality.

iii) There would be cooperation of administrators, staff members and students which would make the study a success.
1.10 Scope and Limitations

The study was conducted in only one co-educational secondary school that is Gituru Secondary School.

Due to limited time and finances, only extraverts and introverts from one co-educational Secondary School participated in this study.

1.11 Delimitations

Kiswahili Recall Test were the only one that were used to measure students academic performance.

The psychological constructs of extraversion-introversion being in continuum were not completely distinguishable.

1.12 Definition of terms

**Praise:** This is the teacher use of repeated positive comments on students’ academic performance in Kiswahili for example, Good Work! Good effort! There is improvement in your work! Well done! Excellent!

**Reprimand:** This is the teacher use of repeated negative comments on students’ academic performance in Kiswahili for example, Poor work! Why? Improve on your poor performance! Wake up and study hard! Get more serious with your work!

**Exravert:** One who is interested directly in the environment or external world and world of people. One who is outward motivated and is visibly moved by the present and is endowed with active habits.
Introvert: One who is interested in his/her own ideas, thoughts, feelings through which he derives values from external world including other persons. He is a 'shut in person'; within his own self, one with minimal emotional expression.

Academic performance: It refers to the extent to which specified educational objectives have been achieved measured by one’s performance in a Kiswahili Recall Tests at school.

Post hoc Analysis: Analysis that was conducted to answer questions that arose in the course of the study.

1.13 Research Design Presented Diagrammatically

The conceptual frame work tend to indicates that both praise and reprimand have differential influence on academic performance of extraverts and introverts.

In Chapter two, the theoretical frame work and the literature review is presented.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction
This chapter starts with an examination of the theoretical framework on extraversion-introversion as presented by Eysenck, Skinner’s operant conditioning theory and the literature review on effect of praise and reprimand on performance. This is followed by the conceptual framework of the study and then the statistical hypotheses which guided this study.

2.1 Theoretical Framework
Two theories are discussed and an attempt is made to show how Eysenck’s Biological theories of personality and skinner’s operant conditioning theory are related to the current study.

2.1.1 Eysenck Biological Theories of Personality
The theories are predictive and causal model and are discussed in details below

2.1.2 Predictive Model
Eysenck, (1957), pointed out that individuals differ in the reactivity of their brains and central nervous system and in the speed with which they develop conditioned responses. Eysenck predictive model traced the difference between extraversions to the variation in the central nervous system levels of inhibition and excitation. He argued that individuals with strong excitatory and weak inhibitory potential are likely to become introverted. In extraverts, their less sensitive, less aroused and more inhibitory brain processes require them to look for continued outside stimuli in order to overcome their own passivity. These individuals are insensitive to low intensity stimulation because their strong
inhibitory process suppresses it. They need to seek more stimulation and can tolerate much higher levels of it before their cortical processes act protectively to inhibit further increases. On the other hand, the more sensitive, the more aroused and less inhibitory introverts need to withdraw from the outside world in order to avoid being overwhelmed by stimulation.

2.1.3 Causal Model

In 1967, Eysenck revised his theory and hypothesized that specific biological functions were responsible for excitation and inhibition. This second explanation traced the difference between extraversion and introversion to levels of cortical arousal. Eysenck, (1967), suggested that introversion-extraversion is related to arousal threshold in the ascending reticular activating system (ARAS) of the brain. The primary function of ARAS is to regulate levels of arousal ranging from sleep to state of high alertness. Destruction of these tissues causes an animal to sleep almost continuously. Whereas, stimulation causes it to become aroused. Thus, the ARAS controls the brains levels of excitability and its responsiveness to stimuli.

Eysenck believes that introverts may have higher levels of ARAS reactivity than extraverts. Thus, given identical stimulation conditions, the state of arousal would be higher in introverts than in extroverts. The higher level of arousal may create a constraint on their behaviour and contribute to the specific traits such as reservation and carefulness that generally characterizes introverts. In the same way, the low levels of arousal experienced by extraverts may lead to an absence of constraints and predominance of impulsive and outgoing behaviours normally associated with extraversion. Eysenck,
(1967), offered a test of the new model by combining it with Yerkes-Dodson law of motivation and performance. The Yerkes-Dodson law maintains that the relationship between motivation and performance is curvilinear. As motivation increases, performance increases until an optimal point is reached after which increasing motivation decreases performance. Optimal performance generally occurs at moderate levels of arousal. Without sufficient motivation, one will not put forth the effort to accomplish a task. However, too much pressure may lead to such a high level of motivation that it actually interferes with our performance. The relationship between motivation and performance also varies with the difficulty of the task. A low level of motivation may be required to complete a very simple task in order to sustain concentration and avoid boredom. A higher level of motivation leads to better performance on a very difficult, complicated task.

There has been a certain number of experimental evidence which seems to support Eysenck theory. For example, Larry, (1976), found that introverts seem to do much better at long boring vigilance tasks than extraverts do; extraverts find it hard to maintain concentration for lengthy periods of time. The explanation for this was that introverts could maintain an optimal level of cortical functioning more easily under conditions of limited stimulation.

According to the two models, introverts who are highly aroused and thus more sensitive to stimulus than extraverts will be affected more by praise and reprimand. Praise will have more positive effects on learning and academic performance of introverts than that
of extroverts. Reprimand which is a painful stimulus will impact more negatively on academic performance of introverts than it will on that of extraverts. In the hope of winning back teacher approval after being reprimanded, extraverts will be more keen in their learning which will lead to high academic performance than that of introverts.

2.1.4 **Skinner’s Operant Conditioning Theory**

Skinner, (1953), maintains that learning is simply a matter of operant conditioning. An operant is any response that an organism makes, or any act or set of acts that it performs. Teaching is the arrangement of contingencies of reinforcement. Reinforcement is anything, an object or event that increases occurrence of responses. Positive reinforcement is something pleasant that when it’s presented, strengthens behaviour. Negative reinforcement is something painful and when it’s terminated strengthens behaviour. Punishment is something painful and when it’s administered is meant at discouraging responses. (Skinner, 1971).

According to Skinner (1953), behaviour is shaped and maintained by its consequences meaning that if learners obtain reinforcement for certain behaviour, they tend to repeat it with vigour whereas if they are punished, they tend to lose interest and their performance suffers.

According to this theory, praise which is a form of positive reinforcement will enhance the academic performance of extraverts and introverts while reprimand which is a form of negative reinforcement will also enhance the academic performance of extraverts and introverts.
2.2 Review of related literature on effects of praise and reprimand

Gates and Rissland (1923) experimented on the effects of encouragement and discouragement upon performance using 74 college students. Some subjects were encouraged with such comments as 'good score' while others were discouraged with such comments as 'poor score'. To the third of the group, no comments concerning their performance were made by the experimenters but they were simply asked to repeat the test.

The findings of this study indicated that there was a slight difference in average improvement in the three groups namely; encouragement, discouragement and repetition. Differences seem to be in favour of encouragement or discouragement rather than mere repetition.

The researchers concluded that it is better to make some comments about scores than to make none; that it’s a little better to make an encouraging remark than a discouraging one, and that dull students are more likely to be affected by discouragement than are bright students.

Hurlock, (1924), studied effects of verbal incentives on school children by dividing 408 third, fifth and eighth grade children into groups by age, sex, race and intelligence. An intelligence test was administered in a test-retest design, a one-week span between testings, and using praise, reproof and control groups. Hurlock, (1924), concluded that
neither praise nor reproof was superior to the other as an incentive and that both tended to result in a greater improvement than did practice alone.

Hurlock, (1925), experimented on variables of praise and reproof using 106 fourth and sixth grade children of both sexes who were divided into four groups, that is praised, reproved, ignored and control groups on basis of intelligence test and arithmetic skill. Children in the control group were given no information how they had performed on the previous days tests; Children in the praised group were commended for their good work; Children in the reproved group were scolded for their poor work while those children in the ignored group received neither favorable nor unfavorable recognition although they did hear other children praised or reproved.

Hurlock, (1925), found that the praised group showed greatest gain with the reproved group being second. The ignored group improved only slightly than the control group. The praised group was the only one to make consistent gains. Younger and older children were found to be equal in responsiveness to incentives of praise and reproof and that praise was the most effective incentive to use in case of all children, when classed “superior” “average” or “inferior” on the initial test. Within the groups, “inferior” children were most responsive to praise, and “superior” children to reproof. Being ignored brought slight improvement on the part of the “superior” and “inferior” children, and little on the “average” children. The conclusion was that regardless of age, sex, and initial ability, praise was the most effective of the incentives investigated.
Forlano and Axelrod, (1937), studied effects of repeated praise or blame on the performance of introverts and extraverts using four classes of average and bright pupils. An extraversion inventory devised by Pinther and others was used to obtain the experimental groups. In order to apply individual incentive of praise or blame, the pupil’s papers were either graded P (poor) or G (good) depending on the pupils group and not on actual performance. Their findings indicated that introverts respond more readily to blame after first application but when the incentive is intensified, extraverts produce larger gain in performance while extraverts are more responsive to one application of praise than introverts; with the second application of praise, introverts slightly surpass the performance of extraverts. The two researchers concluded that blame as a form of motivation is more effective than praise or indifference.

Thompson and Hannicutt, (1944), experimented on the effects of repeated praise or blame on work achievement of introverts and extraverts using fifth grade children in five classes where four classes with 97 pupils acted as experimental groups and one class of 27 pupils as the control group. Introversion-extraversion section of personality Test by Pinther and others was administered to all 124 subjects who participated in the study. Pupils in the praised group received a G (good) mark on their scripts while the blamed group received P (poor) on their scripts but at the end of the final test, all the pupils received G (good) to leave them with pleasant emotion. Thompson and Hannicutt, (1944), found that;
(i) When introverts and extraverts are grouped together, praise and blame are equally effective in motivating work achievement of fifth grade pupils than no external incentives.

(ii) If repeated for five times, enough praise increases work output of introverts until it's significantly higher than of introverts who are blamed or extraverts who are praised.

(iii) If repeated for five times, enough blame increases work output of extraverts until it's significantly higher than that of extraverts who are praised or introverts who are blamed.

In a study to determine if the motivational of blind children are similar to those of sighted children, Kent, (1957), hypothesized, from results of Thompson, (1944), that introverts would respond more readily to praise, extraverts to reproof, but found that either incentive was better than none for the groups except for the public school blind, where there was no difference between incentives and control. Praise was found to be more effective regardless of personality types of sighted and blind children.

Page, (1958), investigated on teachers written comments and their effects on students' academic performance using 74 randomly selected secondary school teachers and their 2139 students as subjects of the study. Page, (1958), formed the following groups; no comment group which received no marks beyond those for grading, free comment group which received whatever comments teacher felt were appropriate for particular students and test concerned and lastly specified comment group which received certain uniform comments.
Page, (1958), found that the free comment students achieved higher scores than the specified comment students. The specified comment students did better than the no comment. All the differences were significant except that between, free and specified comments. Senior high students were more responsive than the junior high.

Kennedy, Turner and Lindner, (1962), studied two groups of adolescents with IQ from 124-150 and from 95-116. For the superior group, no differences in performance were found between three incentives of praise, blame and control while for the average group, blame caused a significant decrement in performance.

Willcutt and Kennedy, (1963), investigated effects of praise and blame on a discrimination task under the variables of grade, intelligence, sex, race, social class and school. Willcutt and Kennedy, (1963), found that the effects of praise, blame and control were quite consistent regardless of subjects differences. Reproof lowered performance while praise resulted in higher increase in performance than that resulting from practice alone.

Anderson, White and Wash, (1966), investigated on generalized effects of praise and reproof on an achievement test using 52 female University students both high and low achievers. Anderson et al. found that greater increment in performance was realized under praise than under reproof and that result suggested that praise and reproof in one subject area in the classroom may well transfer in terms of effects on performance to other classroom behaviour that is entirely distinct and independent.
Rekers and Lovaas, (1974), researched on the behaviour treatment of deviant sex role behaviour in a male child. This young boy had taken on many feminine characteristics for example, clothes, voice and cosmetics. In attempting to change this behaviour pattern, the mother of the child was taught to socially reinforce masculine behaviour. She was taught to praise, encourage and support masculine activities and interests and to ignore feminine behaviour. It was found out that, three year later, the boy's behaviour displayed characteristics of masculine behaviour. The two researchers concluded that, although social reinforcers were not the only reinforcers used in this study, they played a major part.

Stewart and White, (1976), experimented on teachers comments, letter grades and students performance on 415 fifth and seventh grade students in 17 mathematic and spelling classes who were evaluated by their 13 teachers for six weeks with experimentally determined combination of letter grade and comments. Stewart and White, (1976), found that:

(i) Most consistent evidence for comment effectiveness is found at college level, secondary and elementary levels, results are much less consistent.

(ii) Effective comments were encouraging, personalized in nature rather than simple standardized comments.

(iv) There was no strong evidence to suggest that any type of comment retains its effectiveness over extended period of time or if administered on more than one occasion.
Kirby and Shields, (1977), investigated on modification of arithmetic response rate and attending behaviour in a seventh grade student. The subject of this study was a 13 year old boy named Tom of average intelligence. Before the study, Tom was observed for a period of two weeks. During this time, he exhibited a great deal of non-attending behaviour and his arithmetic work was poor. Treatment in form of fixed ratio praise improved the subjects arithmetic performance and non-attending behaviour decreased.

Workman, Kundall and Williams, (1980), carried out a study on consultative merits of praise-ignore-versus-praise-reprimand Instruction. They compared the effects of two behaviour management strategies on three types of student’s behaviour (appropriate, off tasks, and disruptive behaviour). College trained observers recorded target students and teacher behaviour daily. A multiple baseline design with reversals was used to ascertain effectiveness of treatments. Results showed that both the praise/ignore combination and the praise/soft reprimand combination were substantially superior to baseline conditions. However, more rapid and slightly greater improvement was achieved under praise/ignore combination. In contrast, improvement in behaviour diminished less rapidly in the reversals following the praise/ignore phases than in the reversals following the praise/soft reprimand phases.

Tuckman, Bruce and Thomas, (1991), examined encouragement as a factor that motivates students to engage in or persist in performance on a task in which they could choose how much or how long to perform. In the study, 64 undergraduates earned grade bonuses in the course by voluntarily writing test items to measure course content. Half of the
subjects received statements praising their items on the back of their feedback forms while the other half did not.

Tuckman et al. (1991), findings indicated that subjects who received encouragement were significantly higher in final self efficacy and earned significantly more performance points than subjects who received no encouragement and that over time, self efficacy and performance paralleled one another.

Burrel and Bubb, (2002), studied teacher feedback in the reception class. The study was to examine the nature and the frequency of verbal feedback in the reception class in relation to adjustment to school. In the case study, Jane who was considered by her class teacher to be very well adjusted to school was used to receiving rewarding and approving feedback. Richard who was considered poorly adjusted to school used to receive disapproving feedback and on the two occasions, he was punished. The two researchers concluded that teacher's feedback of approval and disapproval affected children adjustment to school.

Webster, Duvall, Gaines and Smith, (2003), experimented on the roles of praise and social comparison information in the experience of pride where 255 undergraduate students were used as subjects. The mere public condition offered only public acknowledgement of successful completion of tasks without further evaluative comments. The praise condition contained public acknowledgement in addition to clear positive evaluation of performance, but without explicit information about how
participants performed compared with others. Social comparison praise condition contained public acknowledgement, clear positive evaluation, as well as comments suggesting superior relative performance.

Webster et al., (2003), findings indicated;

i) Mere publicity did not significantly increase pride. However, when publicity was combined with either praise or social comparison praise, pride was enhanced.

ii) Participants in the private and public conditions (no praise) perceived lower relative performance than those in praise and social comparison praise conditions.

iii) Adding explicit social comparison information did not affect pride any more than praise alone.

iv) If participants concluded that they had done better than others, they felt greater pride even in private conditions.

Webster et al. (2003) concluded that the link between pride and praise was not just a function of pride associated with general positive effects.

2.2.1 Summery of Studies Reviewed

Studies which have been reviewed on the effects of praise and blame on academic performance have yielded in consistent results. At the same time, the above studies have exclusively focused their attention on children. It is not clear whether the findings reported would apply to adolescents. The comparisons that were made between various groups were limited. In the current study, a wide range of comparisons are made.
2.3 Main Statistical hypotheses

The main statistical hypotheses were:

\( H_{O1} \) There is no significant difference in mean academic performance in Kiswahili between extraverts who are praised and extraverts who are reprimanded.

\( H_{O2} \) There is no significant difference in mean academic performance in Kiswahili between extraverts who are praised and extraverts who are in the control group. (no treatment group).

\( H_{O3} \) There is no significant difference in mean academic performance in Kiswahili between extraverts who are reprimanded and extraverts who are in the control group. (no treatment group).

\( H_{O4} \) There is no significant difference in mean academic performance in Kiswahili between introverts who are praised and introverts who are reprimanded.

\( H_{O5} \) There is no significant difference in mean academic performance in Kiswahili between introverts who are praised and introverts who are in the control group. (no treatment group).

\( H_{O6} \) There is no significant difference in mean academic performance in Kiswahili between introverts who are reprimanded and introverts who are in the control group. (no treatment group).

2.4 Post hoc statistical hypotheses

\( H_{O1} \) There is no significant difference in mean academic performance between extraverts who are praised and introverts who are praised.

\( H_{O2} \) There is no significant difference in mean academic performance between extraverts who are praised and introverts who are reprimanded.
H₀₃ There is no significant difference in mean academic performance between extraverts who are praised and introverts who are in the control group (no treatment group).

H₀₄ There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are praised.

H₀₅ There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are reprimanded.

H₀₆ There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are in the control group (no treatment group).

H₀₇ There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised.

H₀₈ There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are reprimanded.

H₀₉ There is no significant difference in mean academic performance between extraverts who are in the control group and introverts who are in the control group.

The above statistical hypotheses were analyzed using pair wise t-tests at \( P \leq 0.05 \).

In chapter three, research design and methodology are discussed.
CHAPTER THREE
METHODOLOGY

3.0 Introduction

The chapter contains the research design that was used, population, research variables, sampling procedures and research instruments. This is followed by validation of the instruments, data collection techniques, pilot study, then issue of ethical consideration, and methods of data analysis.

3.1 Research Design

The research design was experimental in nature. McBurney (1990) notes that in experimental design there are two groups; the experimental and the control group. The experimental group is the one that receives treatment while the control group receives no treatment. In the current study, praise and reprimand were the two forms of treatments that were administered to the experimental groups.

A factorial design is one form of experimental design. A 3 X 2 factorial design was used in the current study, consisting of 3 levels of treatment groups that is praise, reprimand and control, and, 2 levels of personality types of extraversion and introversion. Gay (1992) notes that a factional design involves two or more independent variables, at least one of which is manipulated by the researcher. It allows investigation of two or more variables, individually and in interaction with each other.

The purpose of a factorial design is to determine whether the effects of an experimental variable are generalizable across all levels of a control variable or whether the effects are
specific to specific levels of control variable. Also a factorial design can demonstrate relationships that a single variable experiment cannot.

3.2 The study population

The population of this study were 189 form two students in Kandara Division of Maragua District.

3.3 Research variables

Orodho (2004), notes that a variable is an empirical property that is capable of taking two or more values. The independent variable may influence other variables, thereby determining the value of affected variable. The dependent variables values are influenced by other variables.

3.3.1 Independent variables

The independent variables of this study were: Praise, reprimand, extraversion and introversion.

3.3.2 Dependent variable

The dependent variable was academic performance in Kiswahili.

3.4 Sampling Procedures

3.4.1 School

Purposive sampling was used to obtain one co-educational Secondary school in Kandara Division. A mixed Secondary school with the highest form two students enrollment was preferred in order for the researcher to obtain the required sample size.
3.4.2 Sample

Through the use of Eysenck Personality Questionnaire, 96 form two students from one co-educational secondary school were randomly selected to participate in this study. They were then randomly assigned to the experimental groups (treatment) and the control. Form two students were preferred due to the following reasons;

i) The form two students had adjusted well to the school environment unlike the form ones who were still adjusting.

ii) The research took two months and the researcher did not want to interfere with examinable classes of form three and four.

3.5 Research Instruments

Described below are the research instruments that were used to measure extraversion-introversion and to obtain information on academic performance.

3.5.1 Eysenck Personality Questionnaire (E.P.Q)

The (E.P.Q) constructed by Eysenck (1976) was used. This instrument was constructed with the purpose of measuring the personality variables of extraversion-introversion in adolescents. Norms for the scales show its use among males and females of high school and college level.

This scale and the attendant definition of the concept of extraversion-introversion is the most popular in current use and its usefulness is supported by data such as those by Handel (1976) which showed that the scale has considerable equivalence across age groups and across cultures.
The instrument consists of 24 items that are dichotomously scored on a YES/NO basis. The researcher adopted the questionnaire to make it fair in terms of vocabulary. A higher score of 18 and above indicated extreme extravert and a lower score of 12 and below indicated extreme introvert. The items in the scales cover factors like sociability, impulsiveness, carefree dispositions, and fluctuation in mood, activity and so on. The scale has the following desirable features:

a) It is based on a definite theory of personality, which may be empirically tested.

b) The scoring method is empirically validated on groups whose life histories show them to differ profoundly from each other in the directions required by the theory.

c) Statistical treatment of the data is more adequate than is usual with scales of these types.

d) Widespread use of the scale in industries appear to have shown it to have certain amount of validity.

3.5.2 Recall Tests

In order to measure the effects of extrinsic motivation (praise and reprimand) on academic performance in Kiswahili of extraverts and introverts, researcher’s made Kiswahili Recall Tests were administered on a weekly basis. Refer to Appendix ii. A total of 3 Kiswahili recall tests with 25 items per test were used.

3.6 Validation of the instruments

Eysenck Personality Questionnaire which was used to measure extraversion and introversion is widely used. Validation was done through approval by two supervisors.
who verified the face and the content validity of both the Eysenck Personality Questionnaire and also the Kiswahili Recall Tests. Further validation was done during the pilot study and ambiguous items were removed.

3.7 Data Collection technique

3.7.1 General data collection method

The researcher obtained a research permit from the Ministry of Education, Science and Technology. Later, the researcher visited Gituru Secondary school where he enrolled as a teacher for two months.

3.7.2 Specific Data collection method

The researcher administered the Eysenck Personality Questionnaire to all the 189 students in form two. This is because all extraverts and introverts had equal and independent chances of being selected to participate in this study. This was done a month before the commencement of the experiment. A total of 96 subjects were randomly selected to participate in this study. Half of these subjects were extroverts and the other half were introverts. The subjects were randomly assigned to the two experimental groups (praised and reprimanded) and the control group. The other form two students could not participate in this study because they were average, meaning they were neither extraverts nor introverts.

3.8 Procedures for the administration and scoring of the Recall Tests

The researcher used three form two classes. Two classes of 32 subjects each acted as the experimental groups; the praised and the reprimanded. One class of 32 subjects acted as the control group.
3.8.1 Instructions

Before the commencement of the testing, the researcher informed the subjects that they were to sit for an examination and all examination regulations were to be adhered to for example sitting arrangement and maintenance of silence in the examination room (see Appendix iii).

Each subject was provided with three answer booklets. The subjects were instructed to write their names and registration numbers in the empty booklets. In one answer booklet, they were to write, “first trial,” in the second answer booklet they were to write, “second trial”, and, in the third answer booklet they were to write, “third trial”.

A manila paper containing 25 Kiswahili words was displayed in front of the subjects by the researcher, and then the subjects were requested to read the words from top to the bottom. As each word was displayed and read, it was removed from the subjects’ sight in order to prevent further rehearsal. The exercise took 45 seconds. The manila paper was then withdrawn from the subjects’ view and then they were instructed to write down all the Kiswahili words they could remember in the empty answer booklets bearing the heading: “First Trial”. Words could be written in any order not necessarily in the order in which they had been presented. After 75% of all the subjects had completed the Recall Test, the subjects were instructed by the researcher to stop writing and have their pens down. The researcher then went around making positive or negative comments on subjects’ scripts depending on the
treatment group they belonged to rather than on their actual performance in the Recall Tests. The researcher then collected the scripts for marking.

On the "second" and "third trials" same procedures as above were repeated. After the first test, the subjects were informed to expect a similar test in the week that would follow.

On the "third trial" of the third test, the researcher praised all the subjects in the experimental groups (praised and reprimanded groups) in order to leave them with pleasant emotions.

For the subjects in the control group, same procedures as those in the experimental groups were followed. However, neither positive nor negative comments were made on the subjects' answer booklets. A neutral comment "seen" was made on the students answer booklets after each trial and then the answer booklets were collected for marking. After each testing, the subjects were informed to expect a similar test like the previous one.

3.8.2 Scoring of the Recall Tests

Each item in the Recall Test was awarded one mark. Thus, the total marks for each test was 25. An error due to spelling mistakes led to loss of full mark.
3.9 Pilot study
Piloting was done in order to enhance the reliability and validity or the instruments. In the pilot study, only 32 subjects participated.

The internal consistency technique was used to determine the reliability of Eysenck personality questionnaire. Items in the questionnaire are dichotomously scored on Yes/No basis.

Kuder- Richardson formulas was used

\[ \text{KR}_{20} = \frac{[(K) S^2 + \sum s^2]}{(S^2)(K - 1)} \]

\( \text{KR}_{20} \) = Reliability coefficient of internal consistency

K = Number of items used to measure the concept

\( S^2 \) = Variance of all Score

\( s^2 \) = Variance of individual items

Eysenck Personality Questionnaire yielded a correlation coefficient of \( r = 0.80 \).

Equivalent form method was used to determine the reliability of Kiswahili Recall Tests. There were two equivalent forms of recall tests and thus, the choice of this method. The correlation coefficient was found to be \( r = 0.76 \).

Construct validity was used to determine validity of Eysenck personality questionnaire. Personality types of extraversion-introversion are abstract or hypothetical concepts. They cannot be directly observed but their effects on the behaviour of subjects or individuals can be observed (Orodho, 2004). Constructs such as sociability, impulsiveness are associated with extraversion whereas constructs such as reflective and introspective are associated with introversion.
Content validity was used to determine the validity of Kiswahili Recall Tests. The researcher consulted other Kiswahili teachers to ensure that items in the Recall Tests were valid.

3.10 Ethical Consideration

Negative comments are known to impact negatively on the students' emotions thus, hindering normal learning and academic performance. After the fourth Recall Test, positive comments were made on the script of all the subjects in the experimental groups in order to leave them with pleasant emotions. This was followed by a debriefing session. The researcher explained to the subjects that the negative and the positive comments they were getting had nothing to do with subjects' actual academic performance in Kiswahili Recall Tests. Thus, the need for the subjects to ignore all the comments made in the Recall Tests. At the same time, the whole exercise was done with the informed consent of the participants.

3.11 Data Analysis

Pair wise t-tests were used to compare means of various pairs as shown in table 3.1. These procedures were done using the Statistical Package for Social Sciences (SPSS).
Table 3.1 Pairs of various groups

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>Extraverts Reprimanded</td>
</tr>
<tr>
<td>Extraverts Praised</td>
<td>Extraverts Control</td>
</tr>
<tr>
<td>Extraverts Reprimanded</td>
<td>Extraverts Control</td>
</tr>
<tr>
<td>Introverts Praised</td>
<td>Introverts Control</td>
</tr>
<tr>
<td>Introverts Reprimanded</td>
<td>Introverts Control</td>
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<tr>
<td>Extraverts Praised</td>
<td>Introverts Praised</td>
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<tr>
<td>Extraverts Praised</td>
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<td>Extraverts Reprimanded</td>
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<td>Introverts Control</td>
</tr>
<tr>
<td>Extraverts Control</td>
<td>Introverts Praised</td>
</tr>
<tr>
<td>Extraverts Control</td>
<td>Introverts Reprimanded</td>
</tr>
<tr>
<td>Extraverts Control</td>
<td>Introverts Control</td>
</tr>
</tbody>
</table>

In Chapter four, the results and the analysis are presented
CHAPTER FOUR
RESULT AND ANALYSIS

4.0 INTRODUCTION

This chapter begins with a brief summary of the main objective of this study, which was to investigate the effects of praise as opposed to reprimand on learning Kiswahili in adolescent extraverts and introverts, and to determine how these effects compare to the effects found in the control group that was not given these treatments.

Specifically, the main hypotheses of the study were:-

The null hypothesis one states that:-

\[ H_{01}: \text{There is no significant difference in mean academic performance between extraverts who are praised and extraverts who are reprimanded.} \]

The null hypothesis two states that:-

\[ H_{02}: \text{There is no significant difference in mean academic performance between extraverts who are praised and extraverts who are in the control group (no treatment group).} \]

The null hypothesis three states that:

\[ H_{03}: \text{There is no significant difference in mean academic performance between extraverts who are reprimanded and extraverts who are in the control group (no treatment group).} \]

The null hypothesis four states that:

\[ H_{04}: \text{There is no significant difference in mean academic performance between introverts who are praised and introverts who are reprimanded.} \]
The null hypothesis five states that:

**Ho₅:** There is no significant difference in mean academic performance between introverts who are praised and introverts who are in the control group (no treatment group).

The null hypothesis six states that:

**Ho₆:** There is no significant difference in mean academic performance between introverts who are reprimanded and introverts who are in the control group (no treatment group).

The results relating to each of the above null hypotheses are presented in that order. First, the means of the groups being compared in each hypothesis are presented, then the relevant pair wise t-tests is carried out and the findings then evaluated vis a vis the hypothesis. Finally, a summary of the main findings will be given at the end of this chapter.

### 4.1 Analyses of the Main Findings of the Study (Null Hypotheses Ho₁ to Ho₆)

#### 4.1.1 A Comparison between Extraverts Praised and Extraverts Reprimanded

**Ho₁:** There is no significant difference between extraverts who are praised and extraverts who are reprimanded. The results are presented in table 4.1.
Table 4.1: Mean scores and pair wise tests scores for extraverts praised and extraverts reprimanded

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>22.00</td>
<td>-.914</td>
<td>29</td>
<td>.368</td>
</tr>
<tr>
<td>Extraverts Reprimanded</td>
<td>23.80</td>
<td>-.917</td>
<td>29</td>
<td>.367</td>
</tr>
</tbody>
</table>

The results in table 4.1 showed that the mean of extraverts who were praised is 22.00. This was less than the mean of extraverts who were reprimanded which is 23.80. A pair wise t-tests comparing the above means showed that the two means did not differ significantly at $P \leq .05$ (As illustrated). Based on these findings, the null hypothesis $H_{01}$ was accepted.

4.1.2 A Comparison between Extraverts Praised and Extraverts in the Control Group (No Treatment Group)

The null hypothesis two states that:

$H_{02}$: There is no significant deference in mean academic performance between extraverts who are praised and extraverts who are in the control group (no treatment group). The results are presented in table 4.2.
Table 4.2  Mean scores and pair wise t-tests scores for extraverts praised and extraverts in control group

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>22.00</td>
<td>1.105</td>
<td>30</td>
<td>.278</td>
</tr>
<tr>
<td>Extraverts Control Group</td>
<td>19.00</td>
<td>1.05</td>
<td>30</td>
<td>.278</td>
</tr>
</tbody>
</table>

The results in table 4.2 showed that the mean of extraverts who were praised is 22.00. This was greater than the mean of extraverts who were in the control group which is 19.00. A pair wise t-tests comparing the above means showed that the means did not differ significantly at $P \leq 0.05$ (As illustrated). Based on these findings, the null hypothesis $H_0$ was accepted.

4.1.3 A Comparison between Extraverts Reprimanded and Extraverts in the Control Group

The hypothesis three states that:-

$H_{03}$: There is no significant difference in mean academic performance between extraverts who are reprimanded and extraverts who are in the control group (no treatment group).

The results are presented in table 4.3.
Table 4.3 Mean scores and pair wise t-tests scores for extraverts reprimanded and extraverts in the control groups

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Reprimanded</td>
<td>23.80</td>
<td>1.984</td>
<td>29</td>
<td>.057</td>
</tr>
<tr>
<td>Extraverts Control Group</td>
<td>19.62</td>
<td>1.998</td>
<td>28</td>
<td>.055</td>
</tr>
</tbody>
</table>

The results in table 4.3 above showed that the mean of extraverts who were reprimanded is 23.80. This was greater than the mean of extraverts who were in the control groups which is 19.62. A pair wise t-tests comparing the above means showed that the means did not differ significantly at P ≤ .05 (see table 4.3). Based on these findings, the null hypothesis $H_0$ was accepted.

4.1.4 A Comparison between Introverts Praised and Introverts Reprimanded

The hypothesis four states that:-

$H_0$4: There is no significant difference in mean academic performance between introverts who are praised and introverts who are reprimanded. The results are presented in table 4.4

Table 4.4 Mean scores and pair wise t-tests scores for introverts praised and introverts reprimanded

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverts Praised</td>
<td>23.19</td>
<td>-.450</td>
<td>31</td>
<td>.656</td>
</tr>
<tr>
<td>Introverts Reprimanded</td>
<td>24.12</td>
<td>-.447</td>
<td>28</td>
<td>.659</td>
</tr>
</tbody>
</table>
The results in table 4.4 showed that the mean of introverts who were praised is 23.19. This was slightly less than the mean of introverts who were reprimanded which is 24.12. A t-test comparing the above means showed that the means did not differ significantly at $P \leq 0.05$ (see table 4.4). Based on these findings, the null hypothesis $H_0$ was accepted.

### 4.1.5 A Comparison between Introverts Praised and Introverts in the Control Group

The hypothesis five states that:

$H_{05}$: There is no significant difference in mean academic performance between introverts who are praised and introverts who are in the control group (no treatment group). The results are presented in table 4.5.

**Table 4.5** Mean scores and pair wise $t$-tests scores for introverts praised and introverts in the control group

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>$t$</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverts Praised</td>
<td>23.18</td>
<td>3.315</td>
<td>29</td>
<td>.002</td>
</tr>
<tr>
<td>Introverts Control Group</td>
<td>16.87</td>
<td>3.385</td>
<td>22</td>
<td>.003</td>
</tr>
</tbody>
</table>

The results in table 4.5 showed that the mean of introverts who were praised is 23.18. This was greater than the mean of introverts who were in the control group which is 16.87. A pair wise $t$-tests comparing the above means showed that the means did differ significantly at $P \leq 0.05$ (see table 4.5). Based on these findings, the null hypothesis $H_{05}$ was rejected in favour of alternative hypothesis five ($H_{a5}$) namely that: There is a
significant difference in the mean academic performance between introverts who are praised and introverts who are in the control group.

4.1.6 A Comparison between Introverts Reprimanded and Introverts in the Control Group

The hypothesis six states that:-

\[ H_0^6: \text{There is no significant difference in mean academic performance between introverts who are reprimanded and introverts who are in the control group (no treatment group).} \]

The results are presented in table 4.6.

**Table 4.6** Mean scores and pair wise t-tests scores for introverts reprimanded and introverts in the control group

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverts Reprimanded</td>
<td>24.12</td>
<td>4.731</td>
<td>30</td>
<td>.000</td>
</tr>
<tr>
<td>Introverts Control Group</td>
<td>16.87</td>
<td>4.866</td>
<td>27</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results in table 4.6 showed that the mean of introverts who were reprimanded is 24.12. This was greater than the mean of introverts who were in the control group which is 16.87. A pair wise t-tests comparing the above means showed that the means did differ significantly at \( P \leq 0.05 \) (see table 4.6). Based on these findings, the null hypothesis \( H_0^6 \) was rejected in favour of alternative hypothesis six.

\[ H_{a6}: \text{There is a significant difference in mean academic performance between introverts who are reprimanded and introverts who are in the control group (no treatment group).} \]
Summary of the Main Findings of the Study

Significant differences in mean academic performance were found in null hypotheses five (Ho$_5$) and six (Ho$_6$). Non significant differences in mean academic performance were found in null hypotheses one (Ho$_1$), two (Ho$_2$), three (Ho$_3$) and four (Ho$_4$).

4.2 Post Hoc Findings of the Study

The results obtained from the main hypotheses investigated, left many questions unanswered. However, since these questions could be answered by the same data, nine questions were formulated. These questions were framed in terms of relevant hypotheses which were then analysed in the same way.

These post hoc null hypotheses were:-

**Post hoc Ho$_1$:** There is no significant difference in mean academic performance between extraverts who are praised and introverts who are praised.

**Post hoc Ho$_2$:** There is no significant difference in mean academic performance between extraverts who are praised and introverts who are reprimanded.

**Post hoc Ho$_3$:** There is no significant difference in mean academic performance between extraverts who are praised and introverts who are in the control group (no treatment group).

**Post hoc Ho$_4$:** There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are praised.

**Post hoc Ho$_5$:** There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are reprimanded.
Post hoc Ho₆: There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are in the control groups (no treatment groups).

Post hoc Ho₇: There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised.

Post hoc Ho₈: There is no significant difference in mean academic performance between extraverts who are in the control groups (no treatment groups) and introverts who are reprimanded.

Post hoc Ho₉: There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are in the control group (no treatment group).

Results and Analysis of the Post Hoc Findings of the Study

The results of these comparisons are dealt with below. As with earlier main hypotheses discussed above, the means of the groups are presented first, then followed by relevant t-tests.

4.2.1 A Comparison between Extraverts Praised and Introverts Praised

The post hoc hypothesis one states that:-

Post hoc Ho₁: There is no significant difference in mean academic performance between extraverts who are praised and introverts who are praised. The results and analysis are presented in table 4.7 below.
Table 4.7  Mean scores and pair wise t-tests scores for extraverts praised and introverts praised

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>22.00</td>
<td>-.539</td>
<td>30</td>
<td>.594</td>
</tr>
<tr>
<td>Introverts Praised</td>
<td>23.19</td>
<td>-.539</td>
<td>29</td>
<td>.594</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.7 showed that the mean of extraverts who were praised is 22.00. This was slightly less than the mean of introverts who were praised which is 23.19. A t-test comparing the above means showed that the means did not differ significantly at P ≤ .05 (see table 4.7 above). From the above findings, the post hoc H₀₁ was accepted.

4.2.2 A Comparison between Extraverts Praised and Introverts Reprimanded

The post hoc hypothesis two states that:-

Post hoc H₀₂: There is no significant difference in mean academic performance between extraverts who are praised and introverts who are reprimanded. The results and analysis are presented in table 4.8 below.

Table 4.8  Mean scores and pair wise t-tests scores for extraverts praised and introverts reprimanded

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>22.00</td>
<td>-1.122</td>
<td>31</td>
<td>.270</td>
</tr>
<tr>
<td>Introverts Reprimanded</td>
<td>24.12</td>
<td>-1.118</td>
<td>30</td>
<td>.272</td>
</tr>
</tbody>
</table>
The results and their analysis in table 4.8 showed that the mean of extraverts who were praised is 22.00. This was less than the mean of introverts who were reprimanded which is 24.12. A t-test comparing the above means showed that the means did not differ significantly at $P \leq 0.05$ (see table 4.8 above). On the basis of these findings, the post hoc $H_0_2$ was accepted.

### 4.2.3 A Comparison between Extraverts Praised and Introverts in the Control Group

The post hoc hypothesis three states that:

**Post hoc $H_0_3$:** There is no significant difference in mean academic performance between extraverts who are praised and introverts who are in the control group (no treatment group). The results and analysis are presented in table 4.9.

**Table 4.9** Mean scores and pair wise t-tests scores for extraverts praised and introverts in the control group

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Praised</td>
<td>22.00</td>
<td>3.051</td>
<td>29</td>
<td>.005</td>
</tr>
<tr>
<td>Introverts Control Group</td>
<td>16.87</td>
<td>3.104</td>
<td>24</td>
<td>.005</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.9 revealed that the mean of extraverts who were praised is 22.0. This was greater than the mean of introverts who were in the control group which is 16.87. A pair wise t-tests comparing the above means showed that the means did differ significantly at $P \leq 0.05$ (see table 4.9 above). Based on these findings, the
Post hoc $H_0^3$ was rejected in favour of post hoc alternative hypothesis three ($H_a^3$) namely that: There is a significant difference in mean academic performance between extraverts who are praised and introverts who are in the control group (no treatment group).

### 4.2.4 A Comparison between Extraverts Reprimanded and Introverts Praised

The post hoc hypothesis four states that:

**Post hoc $H_0^4$:** There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are praised. The results and analysis are presented in table 4.10.

**Table 4.10** Mean scores and pair wise t-tests scores for extraverts reprimanded and introverts praised

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Reprimanded</td>
<td>23.80</td>
<td>.283</td>
<td>29</td>
<td>.779</td>
</tr>
<tr>
<td>Introverts Praised</td>
<td>23.19</td>
<td>.285</td>
<td>28</td>
<td>.779</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.10 showed that the mean of extraverts who were praised is 23.80. This was slightly greater than the mean of introverts who were praised is 23.19. A pair wise t-tests comparing the above means showed that the means did not differ significantly at $P \leq .05$ (see table 4.10 above).

From these findings, the post hoc $H_0^4$ was accepted.
4.2.5 A Comparison between the Extraverts Reprimanded and the Introverts

Reprimanded

The post hoc hypothesis five states that:-

Post hoc Ho₅: There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are reprimanded. The results and analysis are presented in table 4.11.

Table 4.11 Mean scores and pair wise t-tests scores for extraverts reprimanded and introverts reprimanded

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Reprimanded</td>
<td>23.80</td>
<td>-1.74</td>
<td>30</td>
<td>.863</td>
</tr>
<tr>
<td>Introverts Reprimanded</td>
<td>24.12</td>
<td>-1.74</td>
<td>29</td>
<td>.863</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.11 revealed that the mean of extraverts who were reprimanded is 23.80. This was slightly less than the mean of introverts who were reprimanded is 24.12. A pair wise t-tests comparing the above means showed that the means did not differ significantly at $P \leq 0.05$ (see table 4.11 above). Based on these findings, the post hoc Ho₅ was accepted.
4.2.6 A Comparison between Extraverts Reprimanded and Introverts in the Control Group

The post hoc hypothesis six states that:-

**Post hoc H_06:** There is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are in the control group (no treatment group). The results and analysis are presented in table 4.12.

**Table 4. 12** Mean scores and pair wise t-tests scores for extraverts reprimanded and introverts in the control groups

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Reprimanded</td>
<td>23.80</td>
<td>4.397</td>
<td>28</td>
<td>.000</td>
</tr>
<tr>
<td>Introverts Control Group</td>
<td>16.87</td>
<td>4.397</td>
<td>23</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.12 reveal that the mean of extraverts who were reprimanded is 23.80. This was greater than the mean of introverts who were in the control groups which is 16.87. A pair wise t-tests comparing the above means showed that the means did differ significantly at P≤05 (see table 4.12 above). Based on these findings, the post hoc H_06 was rejected in favour of post hoc alternative six (H_a6), namely that: There is a significant difference in mean academic performance between extraverts who are reprimanded and introverts who are in the control group (no treatment group).
4.2.7 A Comparison between Extraverts in the Control Group and Introverts

**Praised**

The post hoc hypothesis seven states that:

**Post hoc Ho**: There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised. The results and analysis are presented in table 4.13.

**Table 4. 13** Mean scores and pair wise t-tests scores for extraverts in the control group and introverts praised

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts d Control Group</td>
<td>19.63</td>
<td>-1.538</td>
<td>30</td>
<td>.135</td>
</tr>
<tr>
<td>Introverts Praise</td>
<td>23.19</td>
<td>-1.538</td>
<td>30</td>
<td>.135</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.13 revealed that the mean of extraverts who were in the control group (no treatment group) is 19.63. This was less than the mean of introverts who were praised which is 23.19. A pair wise t-tests comparing the above means showed that the means did not differ significantly at \( P \leq 0.05 \) (see table 4.13 above). Based on these findings, the post hoc Ho was accepted.

4.2.8 A Comparison between Extraverts in the Control Group and Introverts

**Reprimanded**

The post hoc hypothesis eight states that:
**Post hoc Ho₈:** There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are reprimanded. The results and analysis are presented in table 4.14.

**Table 4.14** Mean scores and pair wise t-tests scores for extraverts in the control group and introverts reprimanded

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Control Group</td>
<td>19.63</td>
<td>-2.234</td>
<td>31</td>
<td>.033</td>
</tr>
<tr>
<td>Introverts Reprimanded</td>
<td>24.12</td>
<td>-2.218</td>
<td>29</td>
<td>.035</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.14 showed that the mean of extraverts who were in the control group (no treatment group) is 19.63. This was less than the mean of introverts who were reprimanded which is 24.12. A pair wise t-tests comparing the above means showed that the means did differ significantly at P≤.05 (see table 4.14 above).

On the basis of the above findings, the post hoc Ho₈ was rejected in favour of post hoc alternative eight (Ha₈), namely that: There is a significant difference in mean academic performance between extraverts who are in the control groups (no treatment groups) and introverts who are reprimanded.

**4.2.9 A Comparison between Extraverts in the Control Group and Introverts in the Control Group**

The post hoc hypothesis nine states that:-
**Post hoc Ho₉:** There is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are in the control group (no treatment group). The results and analysis are presented in table 4.15 below.

**Table 4.15** Mean scores and pair wise t-tests scores for extraverts in the control groups and introverts in the control groups

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverts Control Group</td>
<td>19.63</td>
<td>1.500</td>
<td>29</td>
<td>.144</td>
</tr>
<tr>
<td>Extraverts Control Group</td>
<td>16.87</td>
<td>1.530</td>
<td>22</td>
<td>.140</td>
</tr>
</tbody>
</table>

The results and their analysis in table 4.15 showed that the mean of extraverts who were in the control group (no treatment group) which is 19.63. This was greater than the mean of introverts who were in the control group (no treatment group) which is 16.87.

A t-test comparing the above means showed that the means did not differ significantly at P≤.05 (see table 4.15 above). Based on these findings, the post hoc Ho₉ was accepted.

**Summary of the Post Hoc Findings of the Study**

Significant differences in mean academic performances were found in post hoc hypothesis three (Ho₃), six (Ho₆) and eight (Ho₈). Non significant differences in mean academic performance were found in post hoc one (Ho₁) two (Ho₂), four (Ho₄), five (Ho₅), seven (Ho₇) and nine (Ho₉).

In chapter five, discussion, conclusions, implications and recommendations are presented
CHAPTER FIVE

DISCUSSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter begins with a brief summary of the purpose of this study which was to investigate the effects of praise as opposed to reprimand on learning Kiswahili in adolescent extraverts and introverts, and to determine how these effects compare to the effects found in the control group that were not given these treatments.

A random sample of 96 subjects was used. Half of the subjects were extraverts and the other half were introverts.

A 3x2 factorial design was adopted for this study. This was to find out whether the three levels namely praise, reprimand and control would interact with the two levels of personality types of extraversion and introversion to affect academic performance in Kiswahili.

Pair wise t-tests were used to test the null hypotheses at P≤0.05 level of significance for accepting or rejecting the null hypotheses. The results obtained from these t-tests revealed that two of the six main hypotheses; H05 and H06 of the study were rejected. Post hoc hypotheses three (H03), six (H06) and eight (H08) were also rejected.
5.1 Discussion of the Findings and the Conclusions Drawn from the Main Hypotheses of the Study

The hypotheses $H_0_1, H_0_2, H_0_3, H_0_4, H_0_5$ and $H_0_6$ are discussed below:

5.1.1. The null hypothesis one ($H_0_1$) states that there is no significant difference in mean academic performance between extraverts who are praised and extraverts who are reprimanded.

A t-test confirmed that there was no significant difference between the above named groups. Both praise and reprimand motivated the academic performance of extraverts. It would appear that praise acted as positive reinforcements and reprimand acted as negative reinforcements. However, neither praise nor reprimand was found to be superior to the other as external incentives.

This finding is consistent with the finding by Hurlock (1924) who also found that neither praise nor reproof was superior to the other as an external incentive.

This finding does not agree with those from earlier studies for example (Hurlock, 1925 and Anderson, 1966). Hurlock (1925) found that the arithmetic performance of the praised group was significantly higher than that of the group which was reproved or ignored and also higher than the control group. The praised group was followed by that of the reproved, then ignored and lastly by that of the control group. From these findings, it
would appear therefore, that ignoring subjects acts as a vicarious reinforcement that results in lower scores compared to the effects of praise or reproof.

Anderson (1966) also found that greater increase in performance was realised under praise than under reproof. This finding also seems to suggest that reproof has aversive effects which hinder higher performance.

5.1.2 The null hypothesis two ($H_0^2$) states that there is no significant difference in mean academic performance between extraverts who are praised and extraverts who are in the control group (no treatment group).

A t-test showed that the means for the two groups did not differ significantly at $P \leq 0.05$. This finding was unexpected bearing in mind that extraverts praised was a treatment group which was receiving positive reinforcement hence higher performance was expected of it than that in extraverts control group (no treatment group) which was not receiving any reinforcement.

This finding is inconsistent with findings of previous related studies for example, Forlano and Axelrod (1937); Thompson and Hannicutt (1944); and, Kent (1957), who found that praise and blame were equally effective in motivating work achievement of extraverts and introverts than no external incentives.
5.1.3 The null hypothesis three (H0₃) states that there is no significant difference in mean academic performance between extraverts who are reprimanded and extraverts who are in the control group (no treatment group). A t-test on the means between the above groups showed that they did not differ significantly at P≤.05.

The above finding appears to contradict Eysenck’s (1967) theory. Extraverts who were reprimanded got enough stimulation and should have performed better than extraverts who were in the control group. However, the two groups had an almost equal performance.

The findings in null hypotheses H₀₂ and H₀₃ was explained as follows: - It would appear that extraverts who were in the control group did not suffer very low scores. Thus, their performance did not differ much from that of extraverts who were praised or reprimanded. This finding contradicts findings by Thomson and Hannicutt (1944), and Kent’s (1957). The intrinsic motivation may be well supplied in them. The same thing does not seem to happen when introverts are involved. Introverts in the control group got very low scores compared to introverts who were praised or reprimanded. This may have been due to this lack of internal source of motivation.

Further research could be conducted on extraverts praised versus extraverts in the control group and extraverts reprimanded versus extraverts in the control group (no treatment group) using a bigger sample size, to verify the current findings.
5.1.4 The null hypothesis four ($H_{o4}$) states that there is no significant difference in mean academic performance between introverts who are praised and introverts who are reprimanded. A pair wise t-tests comparing these groups showed that the null hypothesis four was accepted. Both praise and reprimand acted as positive and negative reinforcement respectively and motivated the academic performance of introverts. However, neither praise nor reprimand was found to be superior to the other as external incentives at ($P \leq 0.05$)

This finding is consistent with findings by Hurlock (1924) who found that neither praise nor reproof was superior to the other as external incentive. It also confirms one of the findings by Thompson and Hannicutt (1944). These findings add up to show that positive and negative reinforcement are often equal in their effects on performance.

The above finding is inconsistent with findings in other related studies. For example, Hurlock (1925), who found that the arithmetic performance of the praised group was significantly better than that of the reproved group.

5.1.5 The null hypothesis five ($H_{o5}$) states that there is no significant difference in mean academic performance between introverts who are praised and introverts who are in the control group (no treatment group). The null hypothesis five was rejected in favour of alternative hypothesis five ($H_{a5}$), namely that there is a significant difference in mean academic performance between the two groups. This finding was in line with expectation and it makes sense in terms of behaviour theory by Skinner (1953).
Thus, praise acted as positive reinforcement motivating the academic performance of introverts compared to performance of introverts who were in the control group and who lacked such reinforcement. Thus, the academic performance between the two groups did differ.

5.1.6 The null hypothesis six ($H_{o6}$) states that there is no significant difference in mean academic performance between introverts who are reprimanded and introverts who are in the control group (no treatment group).

The null hypothesis six was rejected in favour of alternative hypothesis $H_{a6}$. Reprimand acted as negative reinforcement motivating the academic performance of introverts more than that of introverts who were in the control group and who lacked such reinforcement.

The findings in null hypotheses five and six are consistent with those found in a number of previous related studies. For example, Farlano and Axelrod 1937; Thompson and Hannicutt (1944); and Kent (1957) who found that praise and blame were equally effective in motivating work achievement of extraverts and introverts than no external incentives.

The above findings in null hypotheses five and six are inconsistent with findings by Willcutt and Kennedy (1963) who found that reproof lowered pupils' academic
performance. In this case, reproof may have acted as punishment and thus, pupils' academic performance was lowered.

5.2 Discussion of the findings from post hoc hypotheses of the study

5.2.1 The post hoc hypothesis one \((H_0_1)\), states that there is no significant difference in mean academic performance between extraverts who are praised and introverts who are praised. This finding contradicts findings by Thompson and Hannicutt (1944) who found that praise enhanced performance of introverts more than of extraverts and blame enhanced the performance of extraverts more than that of introverts.

The post hoc hypothesis one was accepted. It will appear that praise acted as positive reinforcement motivating the academic performance of both extraverts and introverts. This finding supports Skinner's operant conditioning theory (1953). It seems that the personality types of extraversion and introversion do not bring about a difference in academic performance when praise is used.

5.2.2 The post hoc hypothesis two \((H_0_2)\) states that there is no significant difference in mean academic performance between extraverts who are praised and introverts who are reprimanded.

The post hoc hypothesis two was accepted. It seems that praise and reprimand acted as positive and negative reinforcements respectively motivating the academic performance of extraverts and introverts. However, neither praise nor reprimand was superior to the
other in motivating the academic performance of extraverts and introverts. The findings by Hurlock (1924) agree with what was found above. This finding also supports that of Thomson and Hannicutt (1944) who showed that both praise and blame are equally effective in motivating work achievement of extraverts and introverts. Taken together, these two studies go to show that irrespective of age (children or adolescents), the effects of praise or reprimand are more or less equal.

5.2.3 The post hoc hypothesis three \( (H_{03}) \) states that there is no significant difference in mean academic performance between extraverts who are praised and introverts who are in the control group (no treatment group).

The post hoc hypothesis three was rejected in favour of post hoc alternative hypothesis \( H_{03} \), namely that there is a significant difference in mean academic performance between the two groups.

It will appear that praise acted as positive reinforcement motivating the academic performance of extraverts. Introverts who were in the control group may have lacked reinforcement. Thus, their performance was not comparable to that of extraverts who were praised. Skinner (1953), argues that a positive reinforcement in form of praise will motivate the academic performance of extraverts than that of introverts who lack such kind of reinforcement.

5.2.4: The post hoc hypothesis four \( (H_{04}) \) states that there is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are praised.
The post hoc hypothesis four was accepted. It is likely that both reprimand and praise acted equally in providing positive and negative reinforcement respectively, hence, equal levels of performance. This finding can be compared to that of post hoc Ho2. Both findings harmonise in showing that whether praise or reprimand are attached to extraversion or introversion makes no difference to performance. Both enhance performance equally.

5.2.5: The post hoc hypothesis five (Ho5) states that there is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are reprimanded.

The post hoc hypothesis five was accepted. It will appear that reprimand acted as negative reinforcement motivating the academic performance of extraverts and introverts equally. Therefore, the two groups had an almost equal performance.

These findings are inconsistent with findings by Thompson and Hannicutt (1944) who found that extraverts who were reprimanded did perform better than introverts who were reprimanded. Further research is needed to explain this inconsistency.

5.2.6 The post hoc hypothesis six (Ho6) states that there is no significant difference in mean academic performance between extraverts who are reprimanded and introverts who are in the control group (no treatment group). The post hoc hypothesis six was rejected in
favour of post hoc alternative hypothesis $H_{a6}$, namely there is a significant difference in mean academic performance between the two groups.

It will appear that reprimand acted as negative reinforcement motivating the academic performance of extraverts. Introverts who were in the control group (no treatment group) lacked reinforcement and thus, their performance was lower than that of extraverts who were reprimanded. The rejection of null hypothesis six ($H_{o6}$) was therefore expected in view of the above explanation. This finding supports Skinner's operant conditioning theory (1953).

5.2.7 The post hoc hypothesis seven ($H_{o7}$) states that there is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are praised.

The post hoc hypothesis seven was accepted. It would appear that extraverts who were in the control group had inner supply of motivation thus their scores did not fall too low. Thus, they had an almost equal performance with introverts who were praised. This explanation also needs verification from further investigations.

5.2.8 The post hoc hypothesis eight ($H_{o8}$) states that there is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are reprimanded.
The post hoc hypothesis $H_0^8$ was rejected in favour of the post hoc alternative hypothesis $H_{a8}$, namely that there is a significant difference in mean academic performance between the two groups. This finding is in line with our expectation.

It is likely that reprimand acted as negative reinforcement motivating the academic performance of introverts to higher levels. Extraverts who were in the control group lacked motivation and therefore, their academic performance was lower compared to that of introverts who were reprimanded.

5.2.9 The post hoc hypothesis nine ($H_0^9$) states that there is no significant difference in mean academic performance between extraverts who are in the control group (no treatment group) and introverts who are in the control group (no treatment group).

The post hoc hypothesis $H_0^9$ was accepted. It seems that there was no reinforcement for the above mentioned groups. This may have led to an almost equal performance between extraverts and introverts who were in the control group. This finding is also in line with our expectation.

5.3 Conclusions

In conclusion, we may summarise the discussion by saying that: Motivation in each of the two groups that is praise and reprimand is higher than that of the control group (no treatment group). Praise and reprimand equally improve performance in both extraverts and introverts.
Extraverts seem to differ from introverts when they are in the control group. They do not seem to suffer so much performance difference as is found when introverts are in the control group. This is reflected in the findings obtained from t-tests in null hypotheses two (H0₂), three (H0₃), five (H0₅) and six (H0₆).

The findings of the present study which was done with adolescent extraverts and introverts to some extent support findings of previous related studies done with children.

5.4 Implications for Teachers
Teachers should make use of extrinsic motivation of praise and reprimand in their teaching-learning processes. This will assist in enhancing students’ academic performance. By using such extrinsic motivation, there should be no fear that differential performance among extraverts and introverts will be introduced, as in both types of personality, performance was more or less equal.

5.5 Recommendations for Further Research
- The findings of this study were based on extraverts and introverts regardless of their gender differences. A similar study could be conducted having students gender as a variable.
- A comparison could be made between bright and dull students, who differ with regard to personality types.
• A similar study investigating similar independent variables such as praise, reprimand, extraversion and introversion but different dependent variables for example, academic performance in Mathematics, English and Biology could be carried out.

• The personality type of either extraversion or introversion of the teacher could be considered to find out whether it interacts with independent variables of praise, reprimand, extraversion and introversion to affect academic performance.

• Future researchers could conduct a similar study and take into consideration teacher and students' gender in their research.
REFERENCES


APPENDICES
APPENDIX I: EYESENCK PERSONALITY QUESTIONNAIRE

Instructions: Please answer each question by putting a tick on the “YES” or “NO” following the question. Work quickly and do not think too long about the exact meaning of the questions.

REMEMBER TO ANSWER EACH QUESTION

1. Do you enjoy plenty of excitement going on around you? YES NO
2. Do you always have quick answers when people talk to you? YES NO
3. Do you prefer spending a lot of time alone? YES NO
4. Can you say you are very lively or cheerful? YES NO
5. Do you have many friends? YES NO
6. Would you enjoy to visit an old building which is known to have ghosts and spirits? YES NO
7. Do you like doing things where you have to act quickly? YES NO
8. Can you be able to keep people happy at a party? YES NO
9. Do you think driving a rally car at high speed of 200km/h would be fun? YES NO
10. Do you enjoy making new friends? YES NO
11. Do you like telling jokes or funny stories to your friends? YES NO
12. Do you have different hobbies? YES NO
13. Would you rather sit and watch than play at parties? YES NO
14. Do you like doing things that are a bit frightening? YES NO
15. Do you like mixing with other students? YES NO
16. Would you like parachute jumping? YES NO
17. Can you let yourself go and enjoy yourself a lot at a lively party?  
   YES  NO

18. Do you often make up your mind to do things suddenly?  
   YES  NO

19. Would you enjoy diving or jumping into the ocean or a swimming pool?  
   YES  NO

20. Do other people think of you as being very lively or cheerful?  
   YES  NO

21. Do you like going out a lot?  
   YES  NO

22. Do you find it hard to really enjoy yourself at a lively party?  
   YES  NO

23. Do you live happily despite the many problems in life?  
   YES  NO

24. Would you like to drive or ride on a fast motorbike?  
   YES  NO
# APPENDIX II: KISWAHILI RECALL TESTS

<table>
<thead>
<tr>
<th>TEST ONE</th>
<th>TEST TWO</th>
<th>TEST THREE</th>
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</thead>
<tbody>
<tr>
<td>Changamoto</td>
<td>Kujitapa</td>
<td>Mwuguzi</td>
</tr>
<tr>
<td>Stadi</td>
<td>Mandhari</td>
<td>Balaa</td>
</tr>
<tr>
<td>Gugumaji</td>
<td>Waraka</td>
<td>Rabsha</td>
</tr>
<tr>
<td>Adimika</td>
<td>Uwati</td>
<td>Mapuuza</td>
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<td>Robota</td>
<td>Fasili</td>
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<td>Gaidi</td>
<td>Nadhifu</td>
<td>Ponza</td>
</tr>
<tr>
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<td>Hidaya</td>
<td>Dharura</td>
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<td>Shanga</td>
<td>Rubuni</td>
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<td>Kisunzi</td>
<td>Kujigamba</td>
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<td>Kupepesuka</td>
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<td>Epua</td>
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<td>Tahadhari</td>
<td>Kemikali</td>
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<tr>
<td>Shari</td>
<td>Gangua</td>
<td>Wahazigi</td>
</tr>
</tbody>
</table>
APPENDIX III: INSTRUCTIONS FOR THE RECALL TESTS

- The researcher would explain to the subjects that the exercise being conducted is meant for the good of the subjects: Finding ways of enhancing their academic performance.

- Time for recalling the Kiswahili words in each trial would be five minutes.

- Cheating in the examination room would lead to penalisation.

- Subjects would be required to maintain total silence in the examination room.

- Subjects would be expected to recall Kiswahili words in any order not necessarily in the order in which they would be presented.

- Subjects would be allowed to guess but a lot of guessing would be penalised.

- It is only a complete Kiswahili word without any spelling mistake that would be awarded a full mark.

- Subjects would be evenly spread in the examination room.
APPENDIX IV: TABLE OF MEANS FOR THE SIX MAIN HYPOTHESIS OF THIS STUDY

<table>
<thead>
<tr>
<th></th>
<th>PRAISE</th>
<th>REPRIMAND</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRAVERTS</td>
<td>21.65</td>
<td>23.80</td>
<td>19.63</td>
</tr>
<tr>
<td>INTROVERTS</td>
<td>23.19</td>
<td>24.12</td>
<td>16.87</td>
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