# MOTIVATION AND ACADEMIC PERFORMANCE OF STUDENTS IN CHEMISTRY OF CHANGAMWE HIGH SCHOOL MOMBASA DISTRICT KENYA.

BY

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UNIVERSITY.



**DECEMBER 2008** 

### **DECLARATION**

I declare that this research project is my original work and has never been presented for the award of a degree in any other University or Institution.

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#### APPROVAL

This is to certify that this report has been approved as a requirement for the degree of Bachelor of

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SUPERVISOR

### **DEDICATION**

Dedicated to my wife Caroline Onyango, my children Joy and Flavian Peter, who have supported me throughout this research endeavor.

#### ACKNOWLEDGEMENT

I wish to express my appreciation to all the people who made this study a possibility. I wish acknowledge my supervisor, Mr. Mundu Mustafa for guiding me through this work. I also want to acknowledge my family for the support, both financial and spiritual, that they gave me during this study. Not to forget my classmates and friends for their contribution towards this work.

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#### ABSTRACT

This study was carried out at Changamwe High School, Mombasa district on motivation and academic performance in chemistry. The researcher studied the effects of motivation on academic performance in chemistry. This report is made up of five chapters.

Chapter one deals with the introductory part of the research. It talks about the background, the theory, objectives and significance of the study.

Chapter two is the literature review. It gives an insight into the different vies of authors trying to highlight on factors and forms of motivation and their impact on academic performance.

Chapter three deals with the research methodology. It includes the design, environment, respondents, instruments, data collection procedures and statistical treatment of data. It specifies how the data was collected and analyzed to come up with the conclusion.

Chapter four is presentation of data from the field. It deals with analysis and interpretation of data.

Chapter five is the last chapter in this project. It deals with discussion, recommendation and conclusions.

#### CHAPTER ONE

#### **INTRODUCTION**

#### 1.0 Overview

In this chapter, the researcher looked at the background of poor performance in chemistry, gave its extent, intensity and some attempted solutions to the de-motivating factors which have brought about the dismal performance, the aims and objectives of the study, and the academic performance of Changamwe High School students, Mombasa District, Coast province, Kenya.

#### **1.1** Background to the Study

Many scientists, researchers and philosophers have tried to come up with theories and explanations as to what motivation is and its effects on individual's behavior. The main concern for this research was on the same and its effects on academic performance in chemistry of Changamwe High School Students, Mombasa District, Coast province, Kenya.

From the Mombasa District Evaluation Examination (mock) results, Chemistry has been rated poorly in many schools but of interest do the students of Changamwe High school register the constant poor grades in the subject. The best grade, for instance, from 1997- 2006 is a D (plus) with mean score of 3.90, meaning that there was a problem which needed to be identified and solved to achieve the main objective of education and more so the aim/objective of science and technology.

The Strengthening of Mathematics and Science Subjects Education (SMASSE) programme have not succeeded even after running for four years in the District which means that there is a problem that the programme have not been able to address. SMASSE is a Government programme in conjunction with the Ministry of Education aimed at strengthening mathematics and science education in secondary schools. It addresses main the issues of attitude of students and science teachers towards the subjects and how the teacher can make the learning of these subjects interesting. However the

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same poor grades are persistent even in the national examination results, Kenya Certificate of Secondary Education (K.C.S.E.). This trend should not be ignored at all.

In normal conditions of teaching and learning, an average student should be able to score at least a C (plus) in sciences and mathematics meaning that no child is "un-teachable" as some say that sciences are for a chosen few. In all the institutions, the least mean grade expected per subject is a C (plain).

A school is set up for the education and helps the young people in the society to develop to their full potential. Achieving excellent results is the expectation of every one in the society. When a student leaves secondary school, he/she should be equipped academically for the next stage of education.

For a nation to have enough/adequate scientists, doctors, nurses, engineers and the like, it calls for high performance in the science-oriented subjects. Chemistry has always been considered a difficult subject in our schools though very crucial. This is seen clearly in the national/external examinations where only 25% of the candidates manage to score C (plain) and above.

This research, therefore, was intended help us identify the actual problems leading to the dismal performance in chemistry and hence their permanent solution

This research is based on the Valency-Instrumentality-Expectancy theory (V.I.E) which was formulated by Vroom in Elliot (1997:10). Valency means value, instrumentality is the brief that if we do one thing it will lead to another, he explained the instrumentality of an individual as the probability that action or effort will lead to outcome. Where a student or an individual chooses between activities that involve uncertain outcomes, it seems that his/her behavior is affected not only by his/her preferences among these outcomes but also by the degree to which he believe that these outcomes are possible.

Expectancy is defined as momentary belief concerning the likelihood that a particular act will be followed by a particular outcome. Expectancies may be described in terms of their strength.

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Maximal strength is indicated by subjective certainty that an act will be followed by an outcome, while minimal strength is indicated by subjective certainty that the act will not be followed by an outcome.

The strength of expectancy may be based on past experiences (reinforcements) but individuals are frequently presented with new situations in the form of reward or punishment. These affect the motivation of an individual.

Motivation is only likely when a perceived and usable relationship exist between performance and outcome. The outcome is seen as a means of satisfying needs. A reward given depends on effort put forth in a given situation.

From this theory it can be understood that, if at all good grades are to be realized in chemistry for instance, then the students, teachers, parents, the Government and all the stakeholders in education should put in some effort in the system and definitely there will be an outcome to satisfy everyone's needs. Each party should be aware of what to expect at the end as a motivation.

#### 1.2 Overall Objective

This study will determine the impact of motivation on academic performance of students in chemistry subject of Changamwe High School, in Mombasa District, Kenya.

#### **1.3** Specific Objectives

This study sought

- i) To identify the different forms of motivation
- ii) To asses the role of different stakeholders in the motivation of students
- iii) To determine the factors affecting motivation and academic performance
- iv) To investigate the impact of motivation on the academic performance in chemistry of Changamwe High school.

#### **1.4 Research Questions**

These following questions were generated for the study

- i) What are the different forms of motivation?
- ii) What significant roles do stakeholders play in motivating the learners?
- iii) What are the factors that affect motivation and academic performance?
- iv) What impact does motivation have on chemistry performance in of Changamwe High school?

#### **1.5** Scope of the Study

This research was conducted at Changamwe High School, Mombasa district, Kenya. This is a mixed day school with a student population of about six hundred (600) and twenty five (25) teachers. It is situated along Jomo Kenyatta Avenue 3 kilometer from the town centre off airport road. The school is the researcher's choice owing to some background information/insight she has about the school. The research findings would help the researcher verify some information about the institution, identify the root cause of poor performance in chemistry and suggest possible remedies for the same. The researcher has friends, who teach chemistry in the school, and she has had an opportunity to teach chemistry and physics in the same school but all along some issues remain unclear as to how and why they happen.

#### **1.6** Significance of the Study.

This study will benefit the following disciplines;

The Government of Kenya through the Ministry of Education will be able to assess its successes and failure and hence formulate new education policies and objective to suit the needs of the learners and the society at large.

The District supervisors will be able to use the findings of this study to ensure that all demotivating factors are minimized or eliminated for the bright future of our nation Kenya.

It will assist the teachers in identifying the areas where improvement in content delivery is needed hence desirable products in the form of grades.

The parents will be able to understand their roles, where they have succeeded or failed and arise for the better of the education of their awards. They will also understand their contribution to the poor academic results in chemistry and formulate a way forward for the school.

The Students will be able to look at their past successes and failure which will provide a useful guide for formulation of new goals for their future.

The researcher shall be able to improve on her research skills and to discover more reasons behind students, poor performance in chemistry.

The future researchers will be able to use the findings of this study to identify other factors affecting academic performance of students in the district in other science based subjects for example mathematics and physics.

#### **CHAPTER TWO**

#### **REVIEW OF RELATED LITERATURE**

#### 1.0 Overview

Motivation is a reward or punishment. It can be intrinsic or extrinsic; that is, from within oneself or external. It triggers the need to excel in a given activity or responsibility meaning it affects one's behavior and so his/her performance. Locke and Latham (2002:50). Academic performance is the achievement of a learner presented in terms of grades ranging from A to E.

When a learner is motivated even by a word of "very good", "you can do better" and the like, he/she feels appreciated and will always want to do better. A teacher who is well paid, given some good allowance, given incentives after teaching some extra hours or assisting learners achieve meaningful grades, will work tirelessly to make the situation better (ibid). This can be done by the employer, parents and by the school's board of governors (B.O.G).

Some schoolteachers are overloaded, assigned subjects they are not trained for. In some other cases, teachers are not motivated and the students too, they travel long distances to and from school. This leads to physical fatigue that leads to low output that subsequently affects academic performance, Kilatya (1985:17)

Students perform poorly in chemistry and other science subjects due to lack of role models in their schools and the society in general. If a girl discovers that chemistry is only taught by male teachers, and so are the other science based subjects, then she will lose interest and leave it to the boy child.

This brings down the school's mean score and in turn the mean grade, Siringi (2001:16). One should have a goal that is characterized by proximity, difficulty and specificity in any activity. The achievement of the goals should be awarded as soon as possible, that is to say, a good goal should present a situation where by the time between the initiation of the behavior and the end-state

(reward) is close. A goal should be moderated and not too hard or too easy to accomplish. People will always want to feel that there is a substantial probability to success.

Specificity concerns the description of the goal. This means that the students need to be helped to set realistic/ideal goals which are very specific in terms of grades to be achieved gradually, that is not too high or too low with close monitoring by the parents and the teachers. Telling a student to get the highest grade in chemistry may be unrealistic to a student who has always got E or D (minus) and again he/ she might not know how much effort he/she needs to reach that goal and hence demotivated, Locke and Latham (2002:51).

Students who are engaged in all class activities, have their curiosity stimulated and are able to express their creativity hence attracted to their work and more so they have good relationship with the others and persist with their work despite challenges and other obstacles. They take visible delight in accomplishing their work and they feel motivated. This means that even those practical in chemistry, should all the time be student centered no matter how challenging or difficult they may seem.

The teacher should only guide and supervise. Similarly some theoretical topic/concepts can be given to learners to discuss and present in class. This inspires the inner world of the learner and can be sustained everyday by traditions of reward and punishment, Phischlecty (1994:9).

A motivator that is external to a student, that is, relevance on factors to the task and to the individual consistency fails to produce any deep and long lasting commitment to learning. Meaning that a student who is used to a system of rewards every continuous assessment test will not see the need for hard work any longer if the rewarding system is withheld or suspended. This is kind of student or learner who work hard to get a reward but not for self-actualization.

Kohn (1993, 5) says that motivation that comes from within oneself is considered to be more durable and self-enhancing. A student who aims at getting good grades in chemistry and the drive is

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from within oneself then he/she will not be stopped by any obstacle or condition, unlike those who only work hard for the teacher or the parent or friends or a reward, Alfie Kohn (1995, 14). A student who sets performance-approach goal involves social comparison such as "I'm motivated by the thought of out performing my peers in this class." This leads to higher effort and somewhat higher course grades.

If all students in a class were to have such, then higher spirit of competition would build, boosting the mean score of the class/school. Adopting performance avoidances goals: "my fear of performing poorly in chemistry is being beaten by my parents" brings about anxiety and hence difficulties to process information effectively and to attend to task requirements leading to decline in performance, Elliot and Church (1997: 11); Elliot et.al (1999: 13)

High needs of develop when parents encourage and reward achievements but do not punish failure, Koestner and McClelland (1990, 23). Conversely, fear of failure seems to develop when successful achievement is taken for granted by parents but failure is punished. This makes the learner to dread failing. Parents should therefore be positive about any achievement by their children and reward them accordingly. A student who scores D or D (plus) should be encouraged to move a grade higher. When the grade is realized then a reward should be given to motivate the child to work harder or aim higher, Weiner (1992, 23).

Providing children with cognitive stimulating home environment that has many opportunities for learning fosters their intrinsic motivation to perform academic tasks. Meaning that if a student is to do well in chemistry, the home environment should have basics like textbooks and at school the laboratory and the library should be well equipped. At home parents should also organize a special room to be used as a study room by the child, Gotefreed et.al (1998:7)

Opportunity for mastery, growth and satisfying interpersonal relationships are the key motivators for any employees. The government should be able to sponsor higher education for the chemistry

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teachers, organize frequent seminars/workshops through the ministry of education where various chemistry teachers meet, learn and exchange ideas and experiences. This will act as a motivator to produce quality grades at school, district and national levels Buckingham and Coffman (1999, 12)

#### Gap in Knowledge

The literature review did not look at certain other factors affecting academic performance like geographical position of the school, number of students in class (students' population) and school fees issues.

It also over looks other stakeholders like the foundation bodies given the fact that the school in question for example, is catholic founded which is also sponsored by the government and the parents.

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#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### 3.0 Overview

In this chapter the researcher describes the research design to be used, the area and the population of the study, sample selection and size, the instruments/tools to collect the data that is to say, explains "what," "how" and "why."

#### 3.1 Research Design

This research was cross-sectional and gender focused where boys and girls were studied. Both qualitative and quantitative methods were used. The qualitative method was to establish the percentage of various factors related to motivation and academic performance in chemistry. The quantitative methods investigated the boys' and girls' levels of motivation and academic performance in chemistry.

#### 3.2 Sample

research involved one hundred and twenty students (242) in forms three and four because these are the classes which have learnt quite some chemistry and understand better the strengths and weaknesses of the whole system starting from the classroom, the facilities, the administration, the society and the home environment. This formed 100% of the total student population in the two classes.

#### **3.3** Instruments

A researcher-devised questionnaire was used. The questionnaire contained 29 closed-ended questions and zero open-ended questions to make it easier to administer and relatively inexpensive to analyze.



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#### 3.4 Data collection procedure

The researcher obtained introductory letter from the research department of the Kampala International University, Uganda, introducing the researcher to relevant authorities in Kenya. This letter was addressed to the District Education Officer (D.E.O), Mombasa. The researcher also visited the district education office with the letter and the D.E.O. in turn wrote an introductory letter to the principal, Changamwe High School, Mombasa.

The researcher visited the school to see the principal who introduced her to the head of department (science) and the head of subject (Chemistry). The researcher was introduced to the respondents by the H.O.D. and the H.O.S, discussed the time schedule and agreed on the appropriate time to conduct the study or administer the questionnaire. The researcher went back to the school/environment as agreed upon to do sampling as specified by the inclusion and exclusion criteria, distribute the questionnaire, brief the participants, give them a time frame of about two weeks to respond and return the questionnaire to enable them think, consult where necessary and hence give accurate/relevant answers/data.

#### 3.5 Statistical Treatment of Data

The frequency and percentage distribution shall be used to determine the effect of motivation on the academic performance in chemistry of Changamwe High School.

Formula:  $f/n \ge 100$ Where f = frequency n = total number of respondents 100 = constant

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#### **CHAPTER FOUR**

### **DATA PRESENTATION, INTERPRETATION AND ANALYSIS**

#### 3.0 Overview

This chapter deals with the presentation interpretation, and the analysis of data. View of respondents are drawn out and organized.

Out of the target population of two hundred and forty two (242) students, only two hundred and forty (240) students returned the questionnaires representing a response rate of ninety nine point one seven (99.17%) as show in the results.

#### **Figure 1: Response Rate of Respondents**



### Table 1 Profile of respondents

Category	Frequency	Percentage
a.) Age		
i) Early Adolescent	0	0
ii) Middle Adolescent	200	83.3
iii) Late Adolescent	40	16.7
Total	240	100
b.) Gender		
a. Male	130	54.2
b. Female	110	45.8
Total	240	100
C.) Academic level		
i) Form 3	150	62.5
ii) Form 4	90	37.5
Total	240	100
D.) Parents academic Qualification		
Doctorate Degree	20	8.3
Masters Degree	29	12.1
Bachelors Degree	50	20.8
Diploma	100	41.7
Certificate	41	17.1
Total	240	100
E) Parents Level of Income		
50,000 - 70,000	10	4.1
30,000 - 50,000	40	16.7
10,000 – 30,000	100	41.7
5,000 - 10,000	60	25.0
Below 5,000	30	12.5
Total	240	100



Figure 2: A pie chart representing the age of respondents

The respondents were found to be age 16years and above with the majority aged 17years. This means that they have the energy necessary study though face with a challenge of emotional changes.

#### Figure 3: A bar graph representing gender of respondents.

The research found out that the there was no gender equity in terms of student enrolment. There were more boys than girls though the margin was very small, fifty four point two percent(54.2%) boys and so forty five point eight percent (45.8%) girls



### Figure 4: Academic Level of Respondents

From the data collected by the researcher, the form threes were more (150) compared to the candidates, the form fours (90). This implies that sixty two point five percent (62.5%) of total respondents who returned the questionnaires were form threes and so only thirty seven point five percent (37.5%) were form fours.



**Figure 5: Parents Educational Level** 

The researcher found out that the parents of the respondents had some academic qualifications though not of high standards.20 of them owning Doctorate Degrees, 29 having Masters Degree, 50 with Bachelors Degrees, 100 had Diplomas, and 41 with Certificates.



### **Figure 6: Parents Level of Income**

From the data analyzed above, very few parents earn enough income that can keep a family comfortable, with all the basic needs meet and not to forget, pay school fees for the young ones. Life is a strangle for any Kenyan who earns less than ksh.50, 000,this means that most of the students spent the better part of the year at home due to lack of school fees.

Area	Mean	Interpretation	Rank
Attitude	2.5	16.7%	4
Role Models	1.5	10%	6
Teaching methods	3.0	20%	2
Reinforcement	3.2	21.3%	1
Social interaction	2.8	18.7%	3
Home environment	15.0	13.3%	5

**TABLE 2.** Degree of motivation of the respondents



#### **Figure 7: Degree of Motivation**

The data above implies that sixteen point seven percent (16.7%) of the respondents agree that, the parents, teachers, friends, and relatives have a positive attitude towards the chemistry subject. However only 10% have mentors (role models) in their environment. They agree that the teachers use appropriate teaching methods to enhance understanding, they get some reward at least annually for improved performance, interact with other students, and friends from other schools, but the home environment doesn't seem conducive for private studies.

#### **TABLE 3: LEVEL OF ACADEMIC PERFORMANCE**

Category	Frequency	Percentage
A – B	20	8.3%
B <sup>-</sup> - C	30	12.5%
C <sup>-</sup> - D <sup>+</sup>	70	29.2%
D and below	120	50%
Total	240	100%



## Figure 8: Level of Academic Performance

The level of academic Excellency is wanting, only eight point three percent (8.33%) manages to get quality grades (A \_ B), twelve and half percent (12.5%) are average and the rest below average. This is due to the fact that half of the total population scores D and below.

#### **CHAPTER FIVE**

#### DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Overview

This chapter summarizes the major findings of the research and presents the discussion. It also gives the conclusions drawn from the results together with the recommendations by the researcher. At the end the researcher gives the suggestions for areas of further research.

#### 5.1 Summery of Findings

The greatest percentage of the respondents was found to young and so age is not a barrier to academic excellence in chemistry. With advancement in age, students tend to fill out of place and hence lack of concentration in class.

**Gender**: When there is gender inequality in the classrooms, the minority tend to shy-off from day to classroom activities and hence dismal academic performance. This was not the case with the Changamwe High School community; the number of male students is slightly bigger than that of the females.

Academic level: Poor enrollment in form four noted and associated with lack of parental guidance as the priorities in life. Most of the former students had dropped out of school to join the beach life. There were 150 form threes and ninety (90) form fours.

**Parents' education level**: Education is the key to success; an educated parent stands a better ground to offer academic counseling. A student who parent is illiterate is left to the hands of a teacher for academic guidance and counseling and with a teacher whose hands are full all through, the student is likely to be miss lead by the peers.

#### 5.2 **DISCUSSIONS**

The major purpose of this study was to investigate the impact of motivation on the academic performance of students. This study was presented according to objectives and in this chapter the respondents views are merged with those of authors those of authors to come up with conclusions. The first research objective was to identify the different forms of motivation. According to respondents, this study found out that the students have to be given enough time for active response in class by their teachers and should be encouraged to learn by seeing.

The above was supported by Phischlecty (19994:9) who says that the teacher should only guide and supervise. Similarly some theoretical topic/concepts can be given to learners to discuss and present in class. This inspires the inner world of the learner and can be sustained everyday by traditions of reward and punishment.

The second research objective was to identify the factors affecting motivation and academic performance. Among others, respondents identified heavy workload of teachers, inadequate competition, poor environment, lack of parents' role in encouragement and support, rewards; absence of physical and verbal inadequate work given to students by teachers, among others.

Authors contacted did not deviate from this, for example Elliot and Church (1997:11) say that if all students in a class were to have such, then higher spirit of competition would build, boosting the mean score of the class/school. Adopting performance avoidances goals: "my fear of performing poorly in chemistry is being beaten by my parents" brings about anxiety and hence difficulties to process information effectively and to attend to task requirements leading to decline in performance, Elliot and Church (1997: 11); Elliot et.al (1999: 13)

High needs of develop when parents encourage and reward achievements but do not punish failure, Koestner and McClelland (1990, 23). Conversely, fear of failure seems to develop when successful achievement is taken for granted by parents but failure is punished. This makes the learner to dread failing. Parents should therefore be positive about any achievement by their children and reward them accordingly. A student who scores D or D (plus) should be encouraged to move a grade higher. When the grade is realized then a reward should be given to motivate the child to work harder or aim higher, Weiner (1992, 23).

The fourth research objective sought to determine the impact of motivation on the academic performance of learners. This was the most important objective as it is where the null hypothesis falls. According to respondents, there is indeed a significant impact of motivation on the academic performance of learners. This therefore refuted the null hypothesis earlier stated. However, many of the emphasized the importance of external motivators for example, many students are encouraged to work hard if they are rewarded after a test or examination. On the other hand, teachers would be willing to teach extra hours if given incentives by either the parents or the school administration.

This is supported by Gotefreed who says that providing children with cognitive stimulating home environment that has many opportunities for learning fosters their intrinsic motivation to perform academic tasks. Meaning that if a student is to do well in chemistry, the home environment should have basics like textbooks and at school the laboratory and the library should be well equipped. At home parents should also organize a special room to be used as a study room by the child, Gotefreed et al (1998:7)

#### 5.3 CONCLUSSIONS

According to this study, the researcher made the following conclusions based on findings; on average, the teachers are well educated coupled with many years of experience in teaching. This came out clearly from the fact that they had taught for more that ten years.

The students and the teachers are de motivated and hence not able to perform well and compete nationally. This is as a result of heavy workload on the side of the teachers yet incentives are only

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given once a year. Parents are not very cooperative in monitoring the students progress, teaches have limited time for developing teaching aids, among others. However, despite all this, the teachers seem to be trying their best since students ere happy with the way they are presenting the lessons.

Many students have no major financial problems since they stated that their families are financially stable and so financial issues in their school are not a barrier to academic performance as many had their basic needs satisfied and even had transport to and from school.

Looking at the performance of the male and female, on average, females performed more dismally in chemistry with a few being average. This can be explained by the fact that they lacked role models in their society and no career talks organized in their school.

The teaching/learning environment in the school is conducive. The school has both science laboratory and library which are well equipped. However, research found that they are under utilized.

Finally, there is understaffing in the school especially in chemistry as a discipline where only three teachers are existing t teach a triple streamed school. These teachers are faced with various challenges in the course of their duty Marjory the heavy workload.

#### 5.4 **RECCOMENDATIONS**

From the findings and conclusions, the researcher would like to make he following recommendations.

The government of Kenya through the Teachers Service Commission (TSC) should consider posting more chemistry teachers to the school. The school Board of Governors and other stakeholders as much as possible should try to motivate both teachers and students and this should be done regularly, at least once in a term.

Parents, teachers and students should work together in harmony; ensure constant communication with each other for better performance.

Parents and guardians should be educated on the importance of allowing their children time for private studies while they are at home.

### 5.5 SUGGESTED AREAS FOR FURTHER RESEARCH

The researcher suggested that further research should be carried out on the challenges facing the investors in the education system.

Another study should be carried out to identify the other factors that lead to dismal performance in science subjects in general.

#### REFERENCES

Buckingham, M. & Coffman, C. (1999): <u>Gallup's Discoveries about Great Manager and Great Work</u> <u>Place</u>; New York, Free Press.

Deci, E. L., Ryan, R.M. (1985): *Intrinsic Motivation and Self-determination in Human Behavior*, New York; Plenum.

Elliot, A.J & Church, M.A (1997): <u>Hierarchical Model of Approach and Avoidance</u>Achievement Motivation, New York; Free Press.

Gottfried, A.E; Fleming, J.S & Gottfried, A.W (1998): <u>Role of Cognitive Home Environment in</u> <u>Children's Academic Intrinsic Motivation</u>; New York, Plenum.

Kilatya David N.P (1985): <u>Problems Encountered in Teaching Sciences</u>; Unpublished M.Ed. Kenyatta University, Kenya.

Kohn, A (1993): *<u>The Trouble with Goldstars, Incentive Plan, As Praise and Other Bribes</u>; Boston, Houghton Mifflin; Rewards.* 

Koestner, R., McClelland, D.C (1990): <u>Perspectives on Competence Motivation</u>; New York Guilford Press, New York.

Locke, E & Latham, G.P (1998): <u>A Theory of Goal Setting and Task Performance</u>; Prenticce Hal, New York, U.S.A. Matesi Evans (2001): <u>Chemistry Performance, Unpublished</u> M.Ed. Nairobi University, Kenya. Schlecty, P (1994): <u>Increasing Student Engagement</u>; Missouri Leadership Academy; New York Press.

Spevak, P.A., PhD & Karinch (2000): <u>Empowering Underachievers</u>, 1<sup>st</sup> Edition; New Horizon Press, New York.

Sternberg, R.J and Lubert, T (1995): <u>Defying Crowd Cultivating Creativity in a Culture of</u> <u>Conformity</u>; New York, The Free Pre

#### **APPENDICES**

#### Appendix A: Transmittal Letter

Onyango Peter. W P.O. Box 98924, 80100 Mombasa Kenya

Mr. Kennedy Rusana Principal Changamwe High School P.O. Box 80124, GPO 80100 Mombasa – Kenya

Dear Sir,

I am a graduating student at Kampala International University Institute of open and Distance Learning in partial (I.O.D.L). I'm requesting to carry out a research and hence a research report (project) of my own choice in partial fulfillment of the requirement for the award of Degree in Early Childhood Primary Education (ECPE). Please allow me to use the school as my Research environment. My topic of study is motivation and academic performance of pupils in science of Umoja Primary School, Mombasa District, Kenya.

Your co-operation will be highly appreciated.

Respectfully yours,

Jope

Onyango Peter W.

Researcher

## **APPENDIX B: QUESTIONNAIRE**

### STUDENTS' QUESTIONNAIRE

Please feel free to answer all the questions and complete the questionnaire. There is no ill motive behind the study. The researcher is a student at the Kampala International University, Uganda. All findings will be used for academic purposes. Any information given will be treated with utmost confidentiality.

(I)	Profile of Students		
Age:	Age:		
Gender:	Male		
	Female		
Academic	c Level:		
	Form 3		
	Form 4		
Parents' educational Level of Qualification;			
	Doctorate Degree		
	Masters Degree		
	Bachelors' degree		
	Diplomas		

Certificate

Your average grade in chemistry since form one



#### D and below

Parents' level of income;

50,000 - 70,000	
30,000 - 50,000	
10,000 - 30,000	
5,000 - 10,000	
Below 50,000	

(II) Direction: Degree of Motivation.

- 4 Strongly agree
- 3 Agree
- 2 Disagree
- 1 Strongly Disagree

#### A) Attitude

- 1. Teachers are dignified in their behavior.
- 2. Parents come to school frequently to discuss my academic Performance with the teachers.
- 3. Parents check my academic report regularly.
- 4. Parents help me in target setting.
- 5. Teachers help me in target setting.
- 6. Teachers allow me to ask questions during my free time.
- 7. Teachers attend all chemistry lessons.
- 8. Parents say chemistry is easy/possible.

#### B) Role Models

- 1. .Aspires to be a chemistry teacher
- 2. Wishes to be in the same profession as my parent.
- 3. My parent has a science-based career
- 4. Have a close relative whose job/career is science-oriented
- 5. Our school has both male and female chemistry teachers.
- 6. My friend is very good in chemistry
- 7. Chemistry teacher inspires me to be a great scientist
- 8. My neighbor is a scientist.

#### C) Teaching methods

- 1. Likes the way chemistry teacher conducts his/her lesson.
- 2. Do chemistry practicals with the help of my teacher.
- 3. Chemistry teacher gives me enough time for active response in Class.

- 4. Chemistry teacher gives me assignments to research on and Present in class.
- 5. Chemistry teacher uses interesting teaching aids
- 6. Chemistry teacher accommodates learners' differences.
- 7. Goes out on educational tours like the oil refineries with my Chemistry teacher.
- 8. Chemistry teacher engage students in class activities.

#### D) Reinforcement

- 1. Chemistry teacher encourages me to work hard
- 2. Chemistry teacher rewards good performance regularly
- 3. Likes the way chemistry teacher reacts to wrong answers in class.
- 4. There is a spirit of competition in class.
- 5. My parents encourage me to work harder.
- 6. Have self-motivation to pass chemistry.
- 7. Friends encourage me to work hard.
- 8. Chemistry is a very marketable subject.

#### **E)** Social Interaction

- 1. Likes comparing notes with students from other schools.
- 2. Likes exchanging examination papers with friends from other Schools.
- 3. Chemistry teacher organizes science day/symposium within the School.
- 4. Likes going for science competition in other schools.
- 5. Participates in science congress at District level.
- 6. Gets time for academic group discussion after school.
- 7. Chemistry teacher gives practicals that involve groups of Students.

8. Likes consulting the chemistry teacher incase of difficulties.

#### F) Home environment

- 1. Gets to school on time.
- 2. Gets time to go to the library.
- 3. Gets time to relax in the field.
- 4. Gets enough time for private studies.
- 5. Likes going to school even on Saturdays and Sundays.
- 6. There are no drug dealers around our school.
- 7. Resides in a very quite place/estate.
- 8. There is a study room at home.

Thank you very much for your co-operation

## APPENDIX C: PLAN FOR DATA PRESENTATION

## Table 1 Profile of respondents

Category	Frequency	Percentage
a.) Age		
in) Early Adal		
iv) Early Adolescent		
v) Middle Adolescent		
vi) Late Adolescent		
Total		
b.) Gender	·	
c. Male		
d. Female		
Total		
C.) Academic level		
i) Form 3		
ii) Form 4		
Total		
D.) Parents academic Qualification		
Doctorate Degree		
Masters Degree		
Bachelors Degree		
Diploma		
Certificate		

33

Total	
E) Parents Level of Income	
50,000 - 70,000	
30,000 - 50,000	
10,000 - 30,000	
5,000 - 10,000	 
Below 5,000	
Total	

# Table 2 :Degree of motivation of the respondents

Area			
Intea (1997)	Iviean	Interpretation	Rank
Attitude			
Role Models			
leaching methods			
Reinforcement			
itemiorecinent			
Social interaction			
Home environment			

# **APPENDIX E: ETHICAL DOCUMENT TO CARRY OUT RESEARCH**



Kampala International University Institute of Open and Distance Learning P O Box 20000 Kansanga, Kampala, Uganda 256 41 373 498/ 256 41 373 889 (Ug) 254 20246275 (Ke) e-mail: efagbamiye@yahoo.com Tel: 0753142725

fice of the Director

24th April 2008

### TO WHOM IT MAY CONCERN:

Dear Sir/Madam,

# RE: INTRODUCTION LETTER FOR MS/MRS/MR. ONYANGO PETER W. REG. #. BED 10014 S2 DF

The above named is our student in the Institute of Open and Distance Learning (IODL), pursuing a Diploma/Bachelors degree in Education.

He/she wishes to carry out a research in your Organization on:

MOTIVATION A	ND ACADEMIC PERFORMANCE
OF STUDENT	IN CHE MISTRY OF
CHAN GAMWE	th GH Screat
MOMBAJA	DISTRICT KENTA,

The research is a requirement for the Award of a Diploma/Bachelors degree in Education.

Any assistance accorded to him her regarding research will be highly appreciated.

Your MUHWE71

