

**PERCEPTIONS OF TEACHERS ON INFLUENCE OF MOTIVATIONAL  
STRATEGIES USED BY CAREER TEACHERS ON STUDENTS' CHOICE OF  
COMPUTER STUDIES IN SECONDARY SCHOOLS IN KISUMU COUNTY, KENYA**

**BY**

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## **DECLARATION**

### **DECLARATION BY THE CANDIDATE:**

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

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## **DEDICATION**

I dedicate this work to my family: husband Benedict Ondiege, my children; Tracy, Valerie, Oliver and Darren, my parents Luke and Jane Oyoo and all my brothers and sisters.

## ABSTRACT

The government of Kenya introduced Computer Studies (CS) in secondary school curriculum for students to acquire computer literacy targeting vision 2030. However, only few students enroll for CS at KCSE level. In Kisumu County, enrolment of students for CS has been very low. For example, 202 out of 5094 (3.97%) students who sat for KCSE in 2015 enrolled for CS compared to 259 out of 4450 (5.82%) students in Siaya County and 243 out of 3976 (6.11%) students in Homabay County. This is so despite career teachers whose role is to provide students with guidance on subject choice, CS included being in place. The purpose of this study therefore was to establish perceptions of career teachers, CS teachers and students on the influence of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County. Objectives of the study were to; establish motivational strategies used by career teachers to influence students' enrolment for CS, establish perceptions of career teachers, CS teachers, and students on the influence of motivational strategies used by career teachers on students' choice of CS and find out effect of combination of motivational strategies on students' choice of CS. The study was based on a conceptual framework showing the influence of motivational strategies (independent variable) on students' choice of CS (dependent variable). Descriptive survey and correlational designs were employed. The study population was 30 career teachers, 30 CS teachers, 265 form four (F4) and 348 form three (F3) students. Saturated sampling was used to select 27 career teachers and 27 CS teachers while stratified random sampling was used to select 80 F4 and 104 F3 students. Data collection instruments were: questionnaire for career teachers, interview schedule for CS teachers and focus group discussions for students. A pilot study was carried out among 3 career teachers, 3 CS teachers, 8 F4 and 10 F3 students using test re-test method. Reliability coefficient was established at .82 using Pearson's  $r$  at .05 confidence level. Face and content validity of the instruments was ascertained by experts in the area. Data on motivational strategies used was analyzed using percentages, data on perceptions on influence of motivational strategies was analyzed using means while data on effect of combination of motivational strategies was correlated. Qualitative data was transcribed, categorized and reported according to themes and sub themes. Organizing joint activities was the most commonly used strategy (74.1%) followed by awarding (66.7%), provision of resource materials (63.0%), inviting motivational speakers (63.0%), inviting role models (51.9%), while the least was organizing trips (22.2%). Inviting motivational speakers was perceived to be the most effective (4.74), followed by organizing field trips and awarding (4.41), inviting role models (4.04). The least effective strategies were provision of resource materials and organizing joint activities (3.85). There was a significant relationship between the combination of motivational strategies used and students' enrolment in CS  $r=0.56$ ,  $P=0.003$ . CS teachers considered organizing joint activities as the most commonly used while organizing field trips was the least used strategy. They also perceived that inviting motivational speakers was the most effective while provision of resource materials was the least effective. According to students, provision of resource materials was the most commonly used while organizing field trips was the least used. Field trips were the most effective while provision of resource materials was least effective. It was concluded that: provision of resource materials and organizing joint activities were the most commonly used strategies while organizing field trips was used the least. Inviting motivational speakers and field trips were the most effective while organizing joint activities and resource materials were the least effective. The most commonly used motivational strategies were perceived to be the least effective. Motivational strategies were found to be highly effective when combined. It was recommended that combination of strategies including inviting motivational speakers and field trips be used as early as form one to encourage students to choose CS. Findings of this study may benefit teachers, ministry of education and school administration in improving enrolment in CS.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>CS</b>	-	Computer Studies
<b>DEO</b>	-	District Education Officer
<b>F4</b>	-	Form four
<b>F3</b>	-	Form three
<b>G&amp;C</b>	-	Guidance and Counseling
<b>ICT</b>	-	Information Communication Technology
<b>KCSE</b>	-	Kenya Certificate of Secondary Education
<b>MS</b>	-	Motivational Strategies
<b>OECD</b>	-	Organization for Economic Cooperation and Development

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter presents background of the study, statement of the problem, objectives of the study, research questions, assumptions of the study, scope of the study, limitations of the study, significance of the study, definition of operational terms and conceptual framework.

#### **1.2 Background of the Study**

Career Guidance (CG) is the process of helping individual students to make career decisions based on evidence of abilities, interests, skills, attitudes and available job openings (Kauchak, 2011; Phumla, 2013). It can be done by creating career awareness that will then influence learners' career decisions (Strong, 2009). According to The National Research Centre for Career and Technical Education (2012) and Adeusi, Adekeye & Babalola (2015), career teachers play a powerful role in the career development of students by assisting them to realize their capabilities.

In most education systems of the world, secondary education prepares students for university or vocational training (Fairmon, 2010). The role of career guidance in secondary schools is to foster career development of learners and enable them to choose the right courses (Gazda, 2008). In Kenya, career masters are expected to help students on career choice (Kochung & Migunde, 2011). This would help Kenya to realize skilled labour hence dependence on expatriates hired from other countries be reduced to meet Kenya's vision 2030 (GOK, 2007).

In his study, Hanifi (2012) found that teachers can employ motivational strategies to encourage students to read scientific texts. He however did not establish the motivational strategies that can be used to influence students' choice of subjects as opposed to the current study that sought to establish motivational strategies used by career teachers to influence students' choice of CS.

Another study conducted in secondary schools in Gilgit-Baltistan of Pakistan found that career teachers have vital roles to guide students for their careers and influence the students' choice of subjects mainly by using role models (Khan, Murtaza and Shafa, 2012). Similarly, Richmond & McCroskey (2013) found that students can be motivated using strategies such as career trips, role models and peer models. In these studies, data was collected from teachers only. This gap has been addressed in the current study by using data from both teachers and students.

Further, in a study on factors that affect choice of science subjects at Lang'ata Secondary School in Nairobi County, Omondi (2013) established that career teachers advised students on subject choice by explaining the relevance of the subjects to various careers. In this study Omondi (2013) used questionnaires to collect data from only 11 teachers and 150 students while in the current study the researcher used a questionnaire, an interview schedule and focus group discussions to collect data from 27 career teachers, 27 CS teachers and 184 students respectively, making it more elaborate. From the studies mentioned, it is clear that career teachers have a vital role in influencing students' choice of subjects and that motivational strategies are very important in this process. This is expected to help the students make wise decisions by choosing subjects that would lead to marketable careers, one of them being CS. However, enrolment in CS is low in Kisumu County due to lack of interest among the students. No study has been conducted to establish motivational strategies used by career teachers to influence students' choice of CS. It is this that led the researcher to seek to establish motivational strategies used by career teachers to influence students' choice of CS to address the low enrolment. Motivational strategies influence students' choice of subjects in different degrees. In a study carried out in New Zealand by the Ministry of Education (2009) it was found that students chose a subject because it was interesting or it would lead to a career. Yunebae (2010) also established that

motivational speakers had the most significant influence on career choice related to science. In addition, Pavol, Gaye & Radoslav (2007) and Ajaja (2010) found that field trips were perceived to have the greatest influence on students' choice of science. In these studies, data was collected from students only. This was limiting as the teachers could have a different perspective. This gap has been addressed in the current study by using information from students, career teachers and CS teachers. From the studies mentioned, it is evident that motivational strategies were perceived to have a degree of influence on students' choice of subjects. However, no study has been carried out to establish influence of motivational strategies used by career teachers on students' choice of CS. It is this that led the researcher to seek to establish perceptions on the influence of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

Motivation can be enhanced by using a combination of strategies. In related studies on effect of use of combinations of strategies, Davidson (2015) determined that students enjoyed Mathematics better when they were exposed to integrated active learning environment. Similarly Lai (2011) found that collaborative and cooperative learning methods increased students' motivation and task engagement. Likewise, Bhagat & Singh (2015) found that use of combination of learning methods increased student interest in a subject. However, Hazari, Potrin, Lock, Lung, Sonnert, Sadler (2013) in a study to test the effects of five high school physics classroom experiences on female students' choice of physical sciences concluded that there was no detectable combined effect of multiple conditions acting simultaneously. All these studies except Hazari et al. (2013) established that use of combinations of strategies led to better results. It is therefore not obvious that use of a combination of motivational strategies would result to higher enrolment. Further, none of the studies were carried out in Kisumu County which is the

area of the current study. In this regard, the researcher sought to find out the effect of combination of motivational strategies on students' choice of CS in secondary schools in Kisumu County.

ICT is very important for developing awareness and promoting life-long learning skills, Tesfay (2017). According to Ndiritu (2013), countries that have succeeded in improving the potential of ICT have taken a positive step towards a greatly expanded economic growth, improved human welfare and stronger forms of democratic governance. Companies also depend upon computerized technology to get work done, making an employee have a better chance of being successful in a workplace if they are computer literate (Lewis, 2012; Latzko, 2013). It is in this regard that the Ministry of Education, Kenya encourages learners to embrace ICT and develop appropriate attitudes towards science and technology-related areas (MOE, 2012). This initiative was supported by the introduction of CS in secondary schools as one of the technical subjects. In order to achieve this goal, the government is working with teacher training colleges to ensure that all teachers are ICT literate prior to commencing their teaching careers, Kurose & Keith (2012).

Despite the efforts of the government, enrolment in CS remains low due to lack of interest among students. Laaria (2013) observed that while other countries have achieved over 41% implementation of ICT in secondary schools, the percentage in Kenyan schools remains very small. In Kisumu County, statistical reports from the County Education Office (2016) indicated that enrolment of students for CS is very low. For example, 202 out of 5094 (3.97%) students who sat for KCSE in 2015 enrolled for CS.

Though lack of computers is a challenge in implementation of computer education in schools according to Mungai (2011); Kiptalam & Rodrigues (2010), the computer schools in Kisumu County have computers that could allow for higher enrolment in CS as well as secure computer laboratories with a complete installation of electricity. In addition, Kisumu City being the third largest city in Kenya and largely metropolitan, the students are expected to know the advantages of doing CS as they are exposed to companies and activities that require ICT skills. It is therefore expected that enrolment in CS should be much higher in Kisumu County. This is indeed worrying. Table 1.1 indicates the number of computers in the computer schools and students' enrolment for CS in 2015.

**Table 1.1: Enrolment for CS in KCSE in Kisumu County**

<b>Codes of school</b>	<b>Does the school have a secure computer lab?</b>	<b>No. of computers</b>	<b>No. of candidates in 2015</b>
1	Yes	23	8
2	Yes	43	10
3	Yes	20	16
4	Yes	10	23
5	Yes	16	7
6	Yes	20	12
7	Yes	27	5
8	Yes	17	6
9	Yes	38	4
10	Yes	12	0
11	Yes	22	3
12	Yes	28	14
13	Yes	20	9
14	Yes	11	1
15	Yes	12	0
16	Yes	18	0
17	Yes	05	0
18	Yes	10	0
19	Yes	20	27
20	Yes	20	19
21	Yes	11	0
22	Yes	10	10
23	Yes	16	3
24	Yes	21	17
25	Yes	16	0
26	Yes	20	0
27	Yes	35	9
28	Yes	10	9
29	Yes	10	0
30	Yes	10	0
<b>TOTAL</b>		<b>551</b>	<b>202</b>

Source: County Education Office, Kisumu County (2016).

Table 1.2 shows data on enrolment in technical subjects to further show the low enrolment for CS in Kisumu County.

**Table 1.2: Enrolment in technical subjects in computer schools in Kisumu County in 2015**

<b>Business Studies</b>	<b>Agriculture</b>	<b>Home Science</b>	<b>Woodwork</b>	<b>Electricity</b>	<b>CS</b>	<b>Total</b>
1934(37.97%)	2627(51.57%)	294(5.78%)	21(0.41%)	16(0.31%)	202(3.97%)	5094

**Source: Kisumu County Education Office -2016**

Though enrolment in Woodwork and Electricity is lower than in CS, it should be noted that the subjects are offered in two schools only and the students select them right from form one. However, CS is done in 30 schools by all the students in form one and form two.

### **1.3 Problem Statement**

Enrolment in CS has been very low in Kisumu County yet CS is a very important subject. For example, 202 out of 5094 (3.97%) students who sat for KCSE in 2015 enrolled for CS in Kisumu County. This is happening even when there are career teachers who are to guide and motivate students to choose subjects using various strategies CS being one of them. It is necessary to establish motivational strategies that may be used to encourage students to choose CS because once students choose subjects in F3, it is not easy to revert and this will eventually affect their choice of career making them live with regrets. Statistical reports from Education offices - Kisumu County Education Office (2016) indicate that 30 out of 231 (12.99%) schools offer CS and have secure computer laboratories. The reports further indicate that the total number of computers in the computer schools is at least 551 yet enrolment in CS at KCSE is very low. Though enrolment in Woodwork and Electricity is lower than that in CS, it should be noted that

the latter are offered in two schools only and the students select them right from form one. This is worrying and it is on this ground that the researcher sought to establish motivational strategies used by career teachers to influence students' enrolment for CS and perceptions of career teachers, CS teachers and students on the effectiveness of the motivational strategies in influencing students' choice of CS in secondary schools in Kisumu County, Kenya.

#### **1.4 Purpose of the Study**

The purpose of this study was to establish perceptions of Career teachers, CS teachers and students on the influence of motivational strategies used by career teachers on students' choice of Computer Studies in secondary schools in Kisumu County.

##### **1.4.1 Objectives of the Study**

The specific objectives of the study were to:

- i. Establish motivational strategies used by career teachers to influence students' enrolment for CS in secondary schools in Kisumu County.
- ii. Establish perceptions of career teachers, Computer Studies teachers and students on the influence of motivational strategies used by career teachers on choice of CS by students in secondary schools in Kisumu County.
- iii. Find out effect of combination of the motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

##### **1.4.2. Research Questions**

- i. What are the motivational strategies used by career teachers to influence students' enrolment for CS in secondary schools in Kisumu County?

- ii. What are the perceptions of career teachers, Computer Studies teachers and students on the influence of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County?
- iii. How does use of combination of motivational strategies by career teachers affect students' choice of CS in secondary schools in Kisumu County?

### **1.5 Assumptions of the Study**

The following assumptions guided the study:

- i. The Ministry of Education's policy on career guidance programmes in secondary schools applies.
- ii. There are career teachers in all schools.
- iii. Students are given an equal opportunity to enroll for CS'
- iv. Career teachers employ motivational strategies to influence students' choice of CS.

### **1.6 Scope of the Study**

This study focused on career teachers' CS teachers' and students' perceptions on influence of motivational strategies used by Career teachers on students' choice of CS in secondary schools in Kisumu County, Kenya. It was informed by career teachers' responses to questionnaires, interview schedule for CS teachers and focus group discussions for students. The research was confined to Kisumu County because enrolment for CS is very low. For example, 202 out of 5094 (3.97%) students who sat for KCSE in 2015 enrolled for CS in Kisumu County compared to 259 out of 4450 (5.82%) students in Siaya County and 243 out of 3976 (6.11%) students in Homabay County. The target population consisted of 30 career teachers, 30 CS teachers, 265 form four and 348 form three students from 30 schools that offer CS. F3 and F4 students were chosen since

they had already selected their subjects which helped to determine the influence that motivational strategies used by career teachers had on their choice of CS.

### **1.7 Limitations of the Study**

- i. The study was conducted in secondary schools in Kisumu County only. The results may therefore not apply to the rest of the counties in Kenya.
- ii. Given that a questionnaire was used to collect data, some of the career teachers could have given wrong information. This was taken care of by the researcher getting the same information from CS teachers and students using interview schedule and focus group discussions respectively.

### **1.8 Significance of the Study**

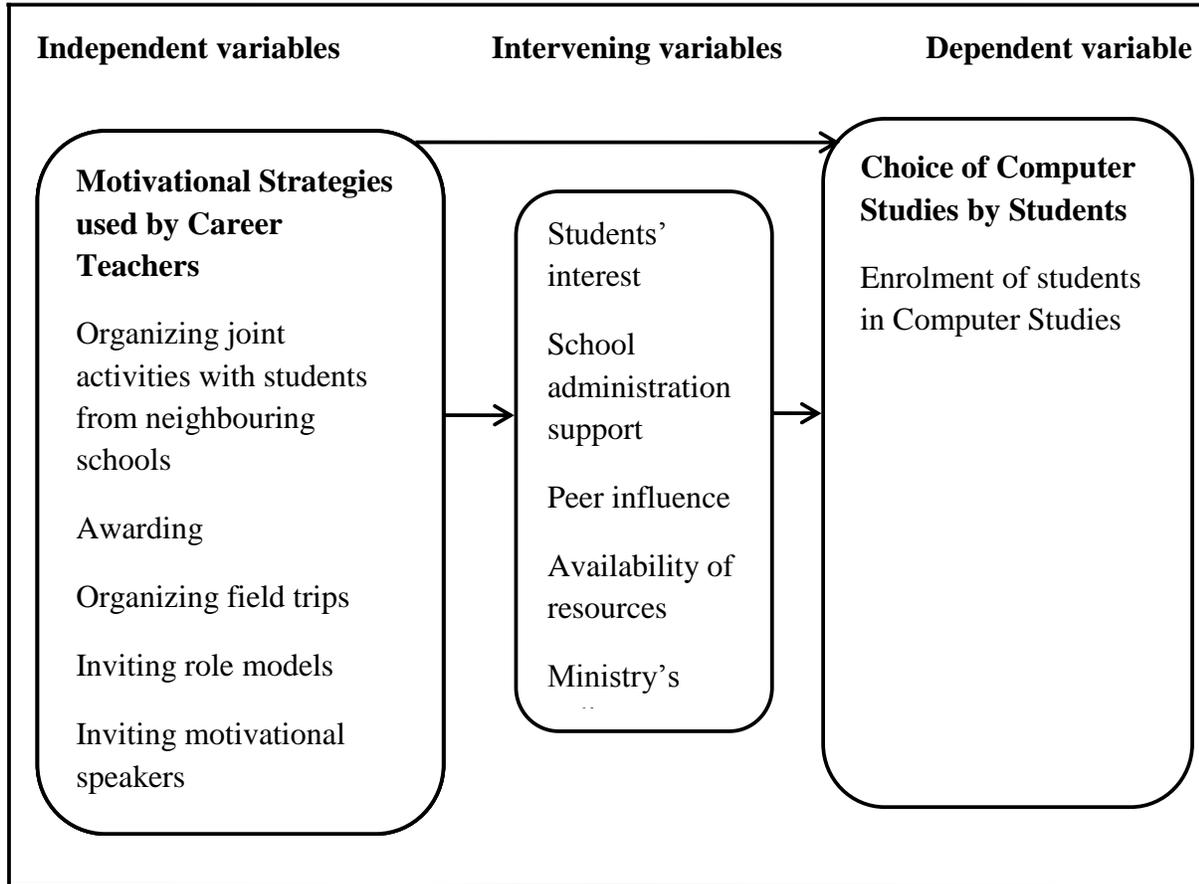
Findings of this study may help the Ministry of Education, school administration, and career teachers to know the motivational strategies to be used more to improve enrolment in Computer Studies in secondary schools in Kisumu County.

### **1.9 Conceptual Framework**

The study was based on a conceptual framework showing how motivational strategies used by career teachers may influence students' choice of CS. Independent variables in this study were motivational strategies used by career teachers. These included: inviting motivational speakers; organizing field trips and joint activities with other students, awarding and inviting role models which if utilized well could motivate more students to choose CS. However, lack of their utilization may lead to fewer students choosing CS. Moore, McLaughlin & Moutray (2010) found that students who are motivated made the choice to do extra credit work, which was consistent with the other choices they made. Dependent variable was students' choice of CS

which is measured by enrolment. Intervening variables were; school administration's support, students' interest, peer influence and Ministry of Education's policy. These could also influence students' choice of CS. For example, if the school administration is supportive of the programme, it would provide adequate finance, time, facilities for implementing the strategies and training of teachers on employing motivational strategies hence high enrolment. On the other hand, if the school administration is not supportive, it would not facilitate training of teachers on how to use motivational strategies, it would not provide finance, time and facilities to organize motivational strategies leading to low enrolment of students in CS. Auni (2011) found that lack of resources and time for counseling students led to poor performance of guidance and counseling programmes. In the same manner, if the students are interested in computer studies, enrolment would be high while if they lack interest in CS, enrolment would be low. Similarly students may choose CS just because their friends have chosen or drop it because their friends have dropped it. The Ministry of Education would also encourage high enrolment in CS if they laid down clear policies that encourage the choice of CS in line with vision 2030 and enforced a proper follow up, while lack of these may lead to low enrolment. How the independent variables, dependent variable and intervening variables interact is demonstrated in figure 1.

The following Conceptual Framework demonstrates how the independent variables, intervening variables and the dependent variable interact.



**Figure 1.1: A Conceptual framework showing the relationship between the motivational strategies (independent variable), intervening variables and the dependent variable.**

**Source:** Researcher

### **1.10 Definition of Operational Terms**

**Career teachers** are teachers who are charged with the responsibility of helping individual students to make decisions on subject choice based on evidence of abilities, interests, skills, attitudes and available job openings.

**Choice of computer studies** is students' perception of control over their own learning and selecting computer studies, enrolling, doing and registering for the subject at KCSE.

**Computer literacy** is the ability to access, evaluate, organize and use information in order to learn, problem-solve, make decisions in formal and informal learning contexts, at work, at home and in educational settings using a computer.

**Computer schools** are schools that offer Computer Studies from form one.

**Motivational strategies** are methods that Career Teachers use to encourage students to choose subjects such as holding congresses, field trips, seminars, awarding and inviting role models who talk to them.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter, literature related to the study has been reviewed based on the stated research objectives.

#### **2.2 Motivational Strategies used by Career Teachers to Influence Students' Enrolment for Computer Studies**

Schacter (2011) states that motivation is a psychological feature that arouses an organism to act towards a desired goal. It involves a constellation of closely related beliefs, perceptions, values, interests, and actions. Intrinsic motivation is animated by personal enjoyment, interest, or pleasure, whereas extrinsic motivation is governed by reinforcement contingencies. In addition, studies by Anderson, Lankshear, Timms & Courtney (2008) have shown that teachers and guidance counselors are likely to encourage learners' enrollment in certain classes. Behavioral approaches stimulated mostly by B.F. Skinner supports the view that individuals' actions can be influenced to meet the desired goals through the notion of reinforcement. It is based on the views that humans are capable of learning any type of behavior and that positive verbal statements of encouragement and praise therefore can strongly influence student motivation (Gross,2010).

Studies carried out in The United States of America established a statistical relationship between students' attitudes to subjects and their subject choice decisions (Brown, 2008). Similarly, Harpur & Quirke (2011) established that students choose subjects based on their attitudes towards the subjects. However, they noted that students would make better choices with proper guidance. The findings revealed that career guidance was offered towards the end of senior

school therefore leaving many of the students regretting not having chosen the subjects leading to their preferred careers.

According to Richmond et al. (2013) students are not always internally motivated. They sometimes need situated motivation, which is found in environmental conditions that the teacher creates such as career trips, role models, use of peer models, establishing a sense of belonging among students and adapting a supportive style. Strategies such as rewards, recognition and reinforcement are useful in motivating students to develop high regard for learning (Lei, 2010). However, Daniels (2010) and Lai (2011) noted that intrinsic motivation works better than extrinsic motivation using rewards and reinforcement.

A study carried out by Science on Stage (2015) in Canada on how to motivate secondary school students to study science found that teachers can make students like their subjects by using strategies such as defining the objectives of the subject so that students know what is expected of them in order to stay motivated to work, organizing field trips and offering rewards. Teachers could also allow students to work together since many would find it fun to try to solve problems, do experiments, and work on projects with other students. In this study, only students were interviewed for information on motivational strategies used while in the current study the researcher got information from students and teachers. In addition, the researcher used focus group discussions to collect data from students which allowed for greater in-depth information.

Findings of a study conducted in secondary schools in Gilgit- Baltistan of Pakistan by Khan et al. (2012) indicated that teachers have vital roles to guide students for their careers and influence the students' choice of subjects using role models. This study was conducted in two girls' secondary schools due to time and resource limitations using qualitative research. This gap has been

addressed in the current study which was carried out in 27 schools, both girls' and boys' schools therefore giving a wider perspective of the motivational strategies used to motivate students. In addition, other than interviewing CS teachers, information was collected from career teachers using questionnaire and students using focus group discussions. As such the current study used both qualitative and quantitative research enabling the researcher to get frequencies to determine the most commonly used motivational strategy which could not be done in the study by Khan et al. (2012).

Hooley (2015) observed that teachers can make students like a subject by using the following strategies: making them see the subject as part of their daily life by the teacher relating the subject to the students' daily lives, making the subject fun by using songs or videos, showing the relevance of the subject to their future careers, providing multiple resources and changing learning environment. He however did not find out the most effective motivational strategy that can influence a student to choose a subject as opposed to the current study which went ahead to establish the most effective motivational strategy in influencing students' choice of CS.

Janelle (2018); Wiley (2013) established that a teacher can prepare a student to like a subject by helping them gain intellectual humility, choice, interest, and relevance. This is done by the teacher providing meaningful alternative methods for completing assignments, meeting goals, using role models, facilitating joint group discussions, organizing work and helping the student see how it relates to what she already knows through using concrete, real-life examples. Wiley (2013) did not study influence of motivational strategies on choice of a particular subject while the current study established influence of motivational strategies on students' choice of CS.

Mpofu (2009) carried out a study in South Africa to find out the impact of vocational orientation activities on learners' career choice. He established that in-school, counseling involved vocational orientation activities such as lectures about job opportunities and career fairs at the school where students can learn from employers and other exhibitors would enable the learners to know the various career opportunities and choose subjects wisely. He however did not establish the motivational strategies that were most commonly used which the current study did. In addition, Mpofu, (2009) got information from teachers only while the current study used responses from both teachers and students.

In another study done by Ndalichako & Komba (2014) in Tanzania, it was noted that teachers influenced learners to choose science subjects by encouraging them. It was further established that learning environment contributed significantly to learners' choice of subjects. In this study, no specific science subject was considered. This gap has been addressed in the current study by studying motivational strategies used to influence students' choice of CS specifically.

In his study carried out in Nairobi Province, Orange (2011) found out that the most commonly used motivational strategy to influence students' choice of subjects was motivational talks which was mentioned by 8(42%) of the 19 respondents. In this study, Orange (2011) used only 19 career teachers as respondents while in the current study 27 career teachers were used. The current study therefore is stronger given the wider perspective of the respondents.

Similar studies by Musungu, Achoka & Nasongo (2008) in secondary schools in Vihiga District, Kenya indicated that head teachers used strategies such as: rewards, guiding and counseling to motivate students to like subjects. In this study data was collected from teachers only. This may have been limiting since students may have had a different view. This gap has been addressed in the current study by seeking students' views as well.

From the mentioned studies it is evident that motivational strategies are used by teachers to influence students' choice of subjects. However, no study has been done to establish motivational strategies used by career teachers to influence students to enroll for CS in secondary schools in Kisumu County. For this reason, the researcher sought to establish motivational strategies used by career teachers to influence students' choice of CS in secondary schools in Kisumu County.

## **2.3 Perceptions of Career Teachers, CS Teachers and Students on the Influence of Motivational Strategies used by Career Teachers on Students' Choice of Computer Studies**

### **2.3.1 Perceptions of Career Teachers on Influence of Motivational Strategies used by Career Teachers on Students' Choice of Computer Studies**

Truby (2010) indicates that human beings are naturally curious and self-directed; they want to learn, make choices, and achieve. Motivation in education can have several effects on how students learn and how they behave towards a subject matter. It can direct behavior towards particular goals, lead to increased effort and energy, increase initiation of and persistence in activities, enhance cognitive processing, determine what consequences are reinforcing and lead to improved performance. Positive verbal statements of encouragement and praise can strongly influence student motivation and build a student's self-confidence, Steel & Piers (2012). According to Guay (2008) teachers perceived that extrinsic rewards undermine intrinsic motivation while Maltese & Tai (2011) found that teachers believe that students' subject choices are influenced by motivation and interests in science and mathematics. In addition, Lai (2011) found that use of combined strategies increase student motivation and task engagement. Another method that was found to affect students' motivation is the classroom environment, particularly with the use of goal-oriented classroom structures, promotion of appropriate attributions, and the use of external evaluation for informational purposes. Lai (2011) interviewed teachers and used

qualitative research and was not able to give a clear picture of the most and the least effective motivational strategy. In the current study the researcher used a questionnaire to collect information from career teachers and was therefore able to establish the most effective motivational strategy used by career teachers on students' choice of CS in Kisumu County based on both qualitative and quantitative data.

Albrecht, Haapanen, Hall & Matonya (2009) in a study in Canada confirmed that extrinsic motivation was more common and easier to facilitate because of students' focus on tangible rewards that give instant gratification which is short-lived. However, intrinsic motivation yielded a long-lasting increase interest for secondary students. Such intrinsic motivation included creating interest in the subject, provision of adequate reading materials, organizing more assessments and showing relevance of the subject to their future careers. This led to the students liking the subjects thereby affecting their choice. In this study, the researchers did not rank the motivational strategies according to their effectiveness. This gap has been addressed in the current study where the researcher has ranked the motivational strategies from the most to the least effective in influencing students' choice of subjects.

Junio (2009) investigated about perception of teachers' on students' motivation for classroom achievement in Catalonia, Spain. He found that teachers view motivation to students as related to teacher's use of motivational strategies which in turn are related to student motivation. He however, did not determine the motivational strategy that was perceived to be the most effective in motivating students to choose a particular subject.

The quality of a subject can have a tremendous effect on whether a student chooses to enroll for it. Quality of a subject means that the laboratories for this subject are well equipped and the

subject is taught by qualified teachers. A subject can be interesting to a student but the class needs to be well executed for the content to actually be understood and beneficial. Research has found that majority of students will choose classes based on its high quality of learning rather than deciding based on the instructor and/or the ease of the class (Babad & Tayeb, 2003; Wilhelm, 2004). In fact, according to Wilhelm (2004), students are four times more likely to choose a subject where they have the opportunity to learn a lot of knowledge even if it requires a lot of readings and assignments.

Hazari et al. (2013) conducted a study in USA to test the effects of five high school physics classroom experiences on female students' interest in pursuing a career in the physical sciences based on the following conditions: (i) having a single-sex physics class, (ii) having female scientist guest speakers, (iii) having a female physics teacher, (iv) discussing the work of female scientists, and (v) discussing the underrepresentation of women. Using national survey data, the effect of these five conditions was tested using multivariate matching methods to compare matched groups of females who experienced and did not experience each of the five conditions. There was significant overlap between the five conditions. Most notably, female guest speakers significantly influenced students' choice of physics. In this study secondary data was used and could not have been accurately applied to the given population while in the current study, the researcher obtained primary data from the career teachers themselves using questionnaire making it more reliable.

According to Adams & Salome (2014) in their study conducted in Nigeria found that availability of qualified teachers who possess the necessary subject content knowledge significantly motivated learners to choose science subjects. Similarly, Nairuba (2011) in a study to determine

motivational practices in Jinja Municipality secondary schools in Uganda students are always on the look out to gain fame, to be praised, to be promoted or even to gain material rewards. The reverse may mean low morale and even abandoning the subject. Adams et al. (2014) and Nairuba (2011) however, did not establish the most effective motivational strategy in influencing students' subject choice which the current study addressed.

A study carried out by Gor (2017) in Migori Sub County, Kenya found that career teachers used several techniques such as career talks, organizing career trips and availing career resource materials to advice students on career choice. He found that 9 out of 10 (90%) of the career counselors felt that career talks were effective in guiding students' career choice, 5 out of 10 (50%) felt that availing career resource materials was effective while 2 out of 10 (20%) felt that career trips were effective. It was reported by 70% of the career counselors that students were exposed to career counseling only during subject selection due to time constrains. In his study, Gor (2017) had only 10 career teachers as respondents while in the current study, 27 career teachers were used thereby giving a wider view. In addition, the study by Gor (2017) was carried out in Migori Sub County which is a rural set up while the current study was carried out in Kisumu County which is largely urban.

### **2.3.2 Perceptions of Computer Teachers on Influence of Motivational Strategies used by Career Teachers on Students' Choice of Computer Studies**

Nandola (2011) conducted research on perception of teachers' motivation in the higher secondary classrooms. 14 higher secondary schools were selected. 18 teachers were selected using purposive sampling. From this study it became quite evident that teachers' motivational constructs impacted students' choice of subjects. Moreover, Kgosietsile (2015) established that teachers perceived that quality of teaching, teacher – student relationship in class, adoption of

teaching approaches and organizing practical work influenced students' choice of physical sciences. He collected from 74 teachers using a questionnaire. These studies used small samples: Nandola (2011) used a small sample size (18 teachers), Kgosietsile (2015) used 74 teachers while in the current study the researcher used 27 career teachers, 27 CS teachers and 184 students. This makes the current study stronger particularly because the teachers sampled are directly in charge of career guidance and CS which is the subject of the study. In addition, the current study incorporated responses from the students and used three tools to collect data.

Additionally, Pavol, Gaye & Radoslav (2007) conducted a study on the effects of field programme on students' knowledge and attitude toward Biology. Based on the results of the research conducted 3 days after the trip by students from a secondary school that was selected purposively, they found a significant and positive increase in students' attitudes toward Biology, natural environment outside and future career in Biology. Field trips were perceived to greatly influence career choice, increase interest and engagement in science regardless of prior interest in a topic. Similarly, Dedmond (2009) in his study to determine extent to which career fairs motivate students to learn found that development of a long-range educational plan through career fairs helped students to value education and to make the most of their time in school. This plan also was perceived to contribute to students' confidence and reduced the fear of the unknown, preparing them for a lifetime of productive employment and continual learning. These studies looked at the influence of field trips only on students' motivation and choice of career while the current study looked at the influence of several strategies on students' choice of CS and also went further to establish the most effective motivational strategy in influencing students' choice of CS.

In a related study to establish influence of teachers and parents on students' choice of subjects in Nigeria by Okeke (2010), parents were found to have significant effect on students' choice of career and subjects. He stated that students could be encouraged into science the relevance of sciences to interesting careers. Furthermore, he noted that school had a great role to play in influencing students' choice of science subjects particularly in Africa by supporting subjects and careers decision making. This according to him would go a long way to encourage students' choice of science subjects. This study looked at the influence of motivational strategies on students' choice of subjects in general while the current study looked at influence of motivational strategies on students' choice of CS. Further, it did not establish the most effective motivational strategy which the current study has gone ahead to do.

In a study carried out in public secondary schools in Dagoretti Sub County, Kenya, Robinson (2015) interviewed teachers who were selected randomly. Most of the respondents identified awarding as the most effective motivational technique in sustaining students' interest, followed by reinforcement, classroom competition, while teaching method was the least sustainable. However, he noted that as much as rewards were the most effective, the effect was short lived. In this study, Robinson (2015) considered only four motivational strategies while in the current study the researcher considered six motivational strategies hence covering a wider scope. In addition Robinson (2015) selected teachers using random sampling while in the current study the researcher used purposive sampling to select teachers. This allowed the researcher to get views from all the teachers concerned making the current findings more elaborate.

Findings of a study conducted by Barasa (2015) indicated that when motivational strategies such as recognition, training, incentives were used on students' interest in subjects improved. This study was conducted in day schools and data collected from teachers only using questionnaires.

This limitation has been addressed in the current study which was carried out in both day and boarding schools.

From the related studies reviewed it is evident that some motivational strategies are perceived by subject teachers to be more effective in influencing students' choice of subjects. However, no study has been done to establish CS teachers' perceptions on influence of motivational strategies used by career teachers on students' choice of CS in Kisumu County. For this reason, the researcher sought to establish CS teachers' perceptions on influence of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

### **2.3.3 Perceptions of Students on Influence of Motivational Strategies used by Career Teachers on Students' Choice of Computer Studies**

Research findings have shown that the pattern of students' interaction inside and outside the classroom has significant effects on their interest in science (Fraser et al. 1999). Every student has their own perception of the values attached to the specific subjects that they would wish to undertake, a series of factors play an important role on the value associated with the subject lesson. These can include the suitability in the job market, career choice. Set expectations and the ability to actually meet those expectations are very likely to positively influence a student's choice in enrolling in a course (Curran, 2006). Melgosa (2014) asserts that students need motivation to gain self esteem which is an important factor in career choice.

Students may prefer quality of education because of the relevance and perceived value it has on their life once they graduate, including their search for employment. According to Nagy, Trautwein, Baumert, Koller, & Garrett (2006), high school students are likely to enroll in subjects that will pertain to what they want to study in college. Students in secondary schools are then greatly influenced by the potential for career opportunities and advancement; therefore, the

more valuable a subject is to a future career, the greater the likelihood a student will enroll in it (Ackerman, 2006). Students' enrollment for subjects based on its relevance to their future career aspirations becomes even more predominate as the students get closer to graduation and they begin to search for jobs (Wilhelm, et al. 2004).

Studies carried out to find out why female students do not enroll for subjects leading to profession in ICT cited barriers including students' perception of the ICT profession as demanding, not conducive to attaining a good balance between work and family and not providing sufficient positive role models (Jepson & Perl, 2002). They indicated that use of role models as a motivational strategy is an effective way of encouraging students to enroll for ICT related subjects. This study however, did not establish the most effective motivational strategy in influencing students' choice of subjects which the current study determined.

Similar studies by Ruesch, Bown & Dewey (2012) in North America found the most effective motivational strategy according to the students to be a teacher's positive example, good relationship between teachers and students, a relaxed atmosphere in the classroom and a teacher making sure that the students understood their tasks. In this study, an interview schedule was used to collect data from students. This may have had a disadvantage of interviewer bias. This gap was addressed in the current study by using focus group discussions which allowed for more in depth information since students could get ideas from each other.

In another related study, Benjamin (2017) established that students' perceptions on subject difficulty were linked to subject choice. Students tended to shy away from subjects that they perceived to be difficult. He interviewed 49 teachers and used FGDs with 112 students from 12 schools across England. This was improved on by the current study which used a questionnaire

for career teachers in addition to interviews for CS teachers and FGDs for 184 students in 27 schools in Kisumu County. Lyons & Quinn (2010) noted that learners perceived relevance of the subject and interest of science as a determinant factor in choosing science subjects. Another study carried out by Ministry of Education, New Zealand (2009) among secondary school students to determine their perceptions on the extent to which motivational strategies influenced students to choose subjects found that the most common reason for students choosing subjects was that it was interesting, or that it would lead to a career of their choice. In this study, focus group discussions were used to collect data from 5,500 students in 20 schools. Similarly in their study, Frey & Fisher (2010) found that tasks that are meaningful to the students' real life motivate them. In the study by Ministry of Education, New Zealand (2009), the population (5500 students) was too large for focus group discussions which may not have been effective as opposed to the population in the current study (184 students) which was manageable. In addition, Ministry of Education, New Zealand (2009) sampled only 20 schools while in the current study all the schools offering CS were sampled hence more representative.

In a study carried out in Dubai by Sulaiman (2006) students felt that providing them with the motivation was the best way to encourage them to have interest in English. This study used 100 students, 10 teachers and 3 supervisors of English. All the students were male. This is a weakness as the findings of the study cannot be generalized to female students even within the region. In addition, the sample population was too small. This has been improved in the current study that has used data from both male and female students and using a bigger population; 184 students, 27 CS teachers and 27 career teachers making the findings of the current study stronger. Furthermore, Sulaiman (2006) only said that use of motivation is effective but did not establish particular motivational strategies and their level of effectiveness, which was done in the

current study. Likewise, in a study carried out in Jerusalem by Yunebae (2010), it was established that the most frequently mentioned reason of a career choice related to science was an interest in science and learning about science. On the other hand, the reason for changing a career choice from science related area to another field included the difficulty of science, losing interest and having a new career hope. It was concluded that the choice of a science related career was influenced by perceptions about careers related to science. In this study, Yunebae (2010) used interviews to collect information from the students while in the current study focus group discussions were used to collect data from the students which allowed participants to feed off each other hence richer data (Poppulo, 2017).

In addition, a study on the perceived factors determining the choice of career among secondary school students in Nigeria, Ogun State by Olamide & Olawaiye (2013) found mentoring and role modeling to be positive forces. Schools and businesses could partner to provide real life scenario and problem- solving situations from which students could benefit, both from practice and experience. In this study 100 students were randomly selected from five secondary schools in Ogun State. The population in this study (100) which was randomly sampled from five (5) schools selected randomly was smaller compared to the population in the current study (184 students) sampled purposefully from 27 schools selected by saturated sampling. The findings of the current study are therefore more authentic. In addition, the study by Olamide & Olawaiye (2013) collected data using a questionnaire and could not get further clarity from the respondents while the current study used focus group discussions enabling the researcher to get more in depth information.

Another study by Ajaja (2010) among secondary school students in Nigeria on the effects of field studies on learning outcome in Biology in schools in Nigeria showed that fieldtrips were effective in encouraging students to choose Biology. Purposive sampling was used to select two senior secondary schools and the analysis of the outcomes demonstrated that there are positive influences of field trips on students. Interviews of teachers and students engaged in field trips produced responses that suggested that there is increased cooperation between pupils with new friendships established, improved relation with teachers, increase in knowledge and skill base, and most significantly, those students who often demonstrated challenging behaviour improved attention and participation back in the classroom. It was therefore perceived that field trips improved students' attitude towards Biology. In this study students from only two schools were sampled and this gave information which must have been homogeneous. This gap was filled in the current study by using saturated sampling to select students from 27 schools which allowed for varied views across the county.

Findings of a study by Bouras & Keskes (2014) conducted in Algeria to determine strategies that motivated students to like English indicated that learners placed emphasis on being respected by teachers as the most motivating factor to learn English as a foreign language. In their study, Bouras & Keskes (2014) used a questionnaire to collect data. This offered shallow information as the researcher could not seek clarity from the respondents. This has been improved in the current study by the use of focus group discussions that provided in-depth information since the students could borrow ideas from each other. Similarly, Obot, Essien, & Akpan (2014) indicated that based on students' perceptions teachers who used motivational strategies effectively helped to enhance students' attitude towards Social Studies and other related disciplines. In addition, results of a study conducted by Bouras (2011) in Algeria showed that students perceived focus of

teaching practices related to the person of the teacher such as: building a solid rapport with students, creating a pleasant atmosphere in the classroom, praising learners and valuing their efforts as the most effective strategy to increase students' motivation to like English Language. Likewise, Takahashi (2018), in a study conducted in Rwanda established that praise oriented motivation was perceived by students as the most effective in encouraging them to like English. In these studies questionnaires were used to get information from students. This may have been shallow since the researcher did not have the chance to prod further. This limitation has been taken care of by using focus group discussions in the current study.

A study by Ndalichako & Komba (2014) on students' subject choice in secondary schools in Tanzania found that the reasons for students' preference of a particular subject included the inspiration from significant others, commitment and support provided by the subject teachers, the availability of teachers and their teaching approaches, availability of teaching and learning materials and relevance of the subject to their daily life experiences. Focus Group Discussion (FGD) was the main tool that was used to gather information used for the study. In each school the FGD involved 6 - 8 students. A total of 129 students were involved in the study while in the current study 184 students were used making the current study have a wider perspective of students' views. In addition, unlike the current study, Ndalichako & Komba (2014) did not attempt to find out the most effective motivational strategy based on students' perceptions.

Another study by Salami (2010) found that motivational talks are very significance in promoting students' self efficacy hence better decisions in career choices. Similarly, Mjege (2013) studied students' perceptions on factors influencing students' choice of science subjects in secondary schools in Tanzania and noted that students' knowledge of available careers related to science and school resource materials affected their choice of science subjects. In this study, 101

students, 21 teachers were selected from 4 schools. This may have given homogeneous information. This gap was addressed in the current study by involving 184 students, 27 CS teachers and 27 career teachers from 27 schools which allowed for more varied responses.

Omondi (2013) sought to find out the influence of teachers students' interest in subjects in Lang'ata High School in Nairobi. He established that teachers greatly influence the choice of subjects by students. From the findings, 97% of the students agreed while 3% of the students disagreed that the teacher influenced the subject choice. The relationship between the subject teacher and the student determined if the student chooses the subject. The method the teacher used to teach determined how the students performed in the subject thus choice of subject. Teachers who were perceived by the students to be good influenced the students into their class while teachers perceived by students not to be the right ones for such subjects reduced the rate of the subject choice by the students. The study adopted a descriptive survey design with a sample size of 11 teachers and 150 students. Questionnaires were used to collect information. In this study Omondi (2013) used only 11 teachers and 150 students while in the current study the researcher used 27 career teachers, 27 CS teachers and 184 students making it more elaborate. In addition, only questionnaires were used in the study by Omondi (2013) while in the current study a variety of tools was used: a questionnaire, interview schedule, focus group discussions. It was therefore possible to get more in depth information in the current study.

Skok (2013) found that knowledge and work experience have the most influence on the choice of a career. Similarly, findings by Kochung & Migunde (2011) indicated that individuals make career choice based on outcome expectations. The results of their study indicated that a high number of students (47.3%) strongly agreed, 24.3% agreed while 11.7% were neutral that availability of jobs influenced their career choice. Kochung & Migunde (2011) however, looked

at factors affecting students' career choice while the current study looked at perceptions on influence of motivational strategies on students' choice of CS. In addition, the study by Kochung & Migunde (2011) was conducted in Kisumu Municipality only while the current study was conducted in the whole of Kisumu County, allowing a wider generalization.

From the related studies reviewed it is evident that some motivational strategies are perceived by students to be more effective in influencing students' choice of subjects than others. However, no study has been done to establish students' perceptions on influence of motivational strategies used by career teachers on students' choice of CS in Kisumu County. For this reason, the researcher sought to establish students' perceptions on influence of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

#### **2.4 Effect of Combination of Motivational Strategies on Students' Choice of Computer Studies**

In studies carried out in U.S on combinations of factors that influence individual educational and career choices, Ceci & Williams (2011); Wai, Cacchio, Putallaz & Makel (2010) identified a wide array of factors underlying both individual and gender differences in math and science achievement motivation, performance, educational and career choice. These factors included motivational beliefs which include self-efficacy, interest, values, and identity processes as key mediators. Motivational beliefs, which are informed by aptitudes in math and science, competence beliefs, interest, and occupational and life values were found to play a role in the decision to pursue science, technology, engineering, and mathematics (STEM) versus non-STEM education fields.

Dolezal (2003) investigated on strategies that teachers use to motivate students in Chicago. He used qualitative analysis with a sample of 9 grade 3 teachers in 8 Catholic schools. She found

that teachers' engagement varied dramatically between some classes, covering with motivating elements of instruction. Engaging teachers did much to motivate their students. Teachers were classified into 3 levels: low, moderately, and highly engaging. In the 3 classrooms characterized by low engagement, teachers were observed to use many practices that undermined motivation. The 4 moderately engaging teachers used many potentially motivating practices in their classrooms but assigned tasks that were low in difficulty. Teachers in the 2 highly engaging classrooms used many potentially motivating practices and required students to complete tasks that were appropriately, cognitively challenging. This proved that using a large combination of motivational strategies was highly effective. In this study, Dolezal (2003) used a sample of 9 teachers from 8 schools only, which in my view was very small. In the current study, the researcher used a sample of 27 career teachers, 27 CS teachers and 184 students. Further, the researcher established the specific combinations of motivational strategies that were highly effective in the current study which Dolezal (2003) did not do.

In a study to determine effect of integration of active learning in the Secondary Mathematics classroom on student learning in South Africa, Davidson (2015) observed that when students were exposed to the integrated active learning environment in a regular public education setting where they interacted with students from other schools and were engaged in practice, the results were significantly better. He therefore recommended that secondary mathematics teachers should integrate active learning regularly in their curriculum to see improved student understanding and liking the subject. Adunola (2011) agrees that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude of complexity of the concepts to be covered. Davidson (2015) used observation to collect information on effect of use of combinations of strategies. This method could be misleading particularly if the students knew

that they were being observed. This gap was filled by the current study by using a questionnaire, interview schedule and focus group discussions giving a greater level of reliability.

Lai (2011) found that use of combination of strategies increase student motivation and task engagement. Teachers interested in using such approaches should form mixed-ability groups that represent a narrow range of ability and structure tasks so that student roles are interdependent. Another method that was found to affect students' motivation is the classroom environment, particularly with the use of goal-oriented classroom structures, promotion of appropriate attributions, and the use of external evaluation for informational purposes, rather than to control behavior or compare students to one another.

A study that was to investigate effectiveness of teaching methods on students' motivation demonstrated that teacher-student interactive method was the most effective teaching method, followed by student-centered method while the teacher-centered approach was the least effective teaching method. However, the results revealed that combining both teacher-centered and student-centered teaching methods in teaching learners is the most effective approach that makes students enjoy doing a subject (Ganyaupfu, 2013). Similarly, a study by Korur, Enil & Gocer, (2016) established that use of combined methods significantly increased students' achievement.

Margolis & McCabe (2006) found that practical ways of teaching such as using peers as role models, teaching specific learning strategies, presenting students with options and choices, communicating recent success are the most effective tactics that can motivate learners to engage in academic tasks. They further established that use of more than one strategy was more effective

in motivating struggling learners. However, they did not determine the most effective combination of motivational strategies which the current study has gone ahead to establish.

Hazari, et al. (2013) conducted a study to test the effects of five high school physics classroom experiences on female students' interest in pursuing a career in the physical sciences based on the following conditions: (i) having a single-sex physics class, (ii) having female scientist guest speakers, (iii) having a female physics teacher, (iv) discussing the work of female scientists, and (v) discussing the underrepresentation of women using national survey data. There was significant overlap between the five conditions. Most notably, female guest speakers significantly influenced students' choice of physics. Additionally, they tested all the interaction effects between all possible pairs of the conditions on the outcome of physical science career interest in this regression model and concluded that there was no detectable combined effect for multiple conditions acting simultaneously. This study used secondary data that could not have been applied to the given study population in totality while the current study used primary data that came from the respondents themselves.

Similarly, Ema & Umoh (2017) carried out a study on effect of blended instructional strategy on Commerce students' motivation in secondary schools in Uyo Local Government area of Akwa Ibom State-Nigeria. Results of the analysis showed a significant difference between Commerce students taught with blended instructional strategy and those taught with expository method. The students taught using the blended method performed had higher motivation in doing Commerce. The findings of this study were based on students' performance in tests which could have been influenced by factors other than use of combination of strategies. This gap has been addressed in the current study by using interviews, a questionnaire and focus group discussions to determine

the most effective motivational strategy which was used to check the truth of the information on the effect of combination of strategies.

From the related studies reviewed it is evident that using combinations of motivational strategies is more effective than using simple strategies in motivating students to like or choose subjects.. However, no study has been done to determine effect of combinations of motivational strategies used by career teachers on students' choice of CS. For this reason, the researcher sought to determine effect of combinations of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design, area of study, target population, sample size and sampling techniques, instruments for data collection, pilot study, reliability and validity of research instruments, data collection procedures and methods of data analysis used in this study.

#### **3.2 Research Design**

The study adopted descriptive survey and correlational research designs. Descriptive survey design involves collecting data to test hypothesis or to answer questions about people's opinions on some topic or issue (Gay, Mills & Airasian, 2012). Correlational research design on the other hand involves collection of data and determining the relationship between the variables (Orodho, 2004).

Descriptive survey design was used since it is quick and practical in terms of financial aspects and allows a flexible approach ,thus when important new issues and questions arise during the duration of the study, further investigation may be conducted (Orodho, 2003). This method also gave the researcher a greater option in selecting instruments to analyze the primary data got through interview, questionnaire and focus group discussions. Correlational design was used since it has a predictive value showing the relationship between two measures. The researcher was therefore able to find out the effect of combination of motivational strategies on students' choice of CS. Though the study population was small (27), studies have shown that a sample of 25 or more suffices for Pearsons r (David, 1938).

### **3.3 Area of Study**

The study was carried out in Kisumu County, Kenya, whose headquarters is Kisumu City. Kisumu County covers an approximate area of 2043.90 sq. km. It is made up of 7 sub counties, namely: Kisumu West, Kisumu East, Kisumu Central, Seme, Muhoroni, Nyakach and Nyando. Kisumu County is blessed with attractive sites such as: Kit Mikayi with fascinating rock formations stretching across the hilly landscape, Ndere National Park which is home to lots of flora and fauna species and also offers a fascinating view of Homa Hills as well as surrounding islands, Kisumu National Park (Official Constituency Portal, Kisumu County, 2014).

According to the national census by the National Population and Statistics Bureau (2009) Kisumu County has a population of 968,909. It is the third largest city in Kenya and covers approximately 0.4 million hectares with 550 km of lake shoreline. It lies between a latitude of 0° 15' South and a longitude of 34° 47'. Kisumu County borders Vihiga County to the north, Siaya County to the west, Homabay County to the south west, Nandi County to the north east and Kericho County to the south east. The climate is generally warm with temperatures ranging from 19°C to 32°C. 62.10%. Natives depend on small scale crop farming as a source of income. Fishing, Agriculture, trade and transport are the main economic activities. More than 50% of the population live below poverty level making students and schools to rely on bursaries and grants for their development. The adult literacy rate is 48% with 24.6% of the urban poor having attained secondary education (Kenya National Bureau of Statistics, 2009). Kisumu County has benefitted from rural electrification project that has ensured that most of the schools have electricity. Kisumu City is strategically located as the premier frontier county and inland terminal at Lake Victoria thus making it an important gateway to the East African regions around the lake. It is also metropolitan and has many internet service providers, businesses and companies

that use ICT in their operations (Republic of Kenya, 2013). This is expected to influence students to take advantage of the availability of CS in their schools and register for the subject at KCSE. Kisumu County has 67 secondary schools 30 of which have computers with secure computer laboratories. However few students register for CS at KCSE level. For example, 202 out of 5094 (3.97%) students who sat for KCSE in 2015 enrolled for CS in Kisumu County compared to 259 out of 4450 (5.82%) students in Siaya County and 243 out of 3976 (6.11%) students in Homabay County. This led the researcher to purposefully choose Kisumu County.

### **3.4 Study Population**

The target population consisted of 30 career teachers, 30 CS teachers, 265 form four and 348 form three students from 30 schools that offer CS. Form three and four students were chosen since they had already chosen elective subjects, CS being one of them. They could therefore give information which helped to determine the influence that motivational strategies used by career teachers had on their choice of CS.

### **3.5 Sample Size and Sampling Techniques**

Using purposive sampling technique, the researcher selected 30 schools that offer CS. Purposive sampling technique allowed the researcher to use cases that have the required information with respect to the objectives of his or her study (Mugenda, & Mugenda, 2008). These cases were the 30 schools that offer CS. Saturated sampling was used to select 27 career teachers and 27 CS teachers. Saturated sampling is a sampling technique where each and every member of the population is selected for a study (Mugenda, et al. 2008). It was appropriate for this study as it ensured representativeness and precision. A sample size of 80 F4 and 104 F3 students was selected. A sample of 30% was considered from each group using stratified random sampling technique which gave each item in the population an equal probability chance of being selected

in the same proportion as they existed in the population. According to Gay et al. (2012), a sample of 10 - 30% is representative to a given population. It was appropriate for this study since it ensured that the F4 and F3 students were represented in the sample in the same proportion as they existed in the population.

**Table 3.1: Study Population and Sample Size**

<b>S.NO</b>	<b>CATEGORY</b>	<b>POPULATION</b>	<b>SAMPLE SIZE</b>	<b>PERCENTAGE</b>
<b>1</b>	<b>F4 students</b>	<b>265</b>	<b>80</b>	<b>30</b>
<b>2</b>	<b>F3 students</b>	<b>348</b>	<b>104</b>	<b>30</b>
<b>3</b>	<b>Career teachers</b>	<b>30</b>	<b>27</b>	<b>90</b>
<b>4</b>	<b>CS teachers</b>	<b>30</b>	<b>27</b>	<b>90</b>

**Source: Computer schools- Kisumu County.**

### **3.6 Instrumentation**

The researcher used a questionnaire to collect data from career teachers. Interview schedule was also used to collect data from CS teachers while focus group discussions were used to collect data from students.

#### **3.6.1 Career Teachers' Questionnaire**

A questionnaire is a form containing a set of questions especially one addressed to a statistically significant number of subjects as a way of gathering data for a survey (Houghton, 2011). Career teachers' questionnaire in this study was used to collect data on the total number of students in F4 and F3 and the number of students taking CS in F4 and F3, motivational strategies used by career teachers, perceptions on how motivational strategies influence students' choice of CS. The

items on the first objective took the form of agree and disagree while those on the second objective took the format of five point Likert scale with 5 as the highest and 1 as the lowest score. A score of 5 indicated total agreement while a score of 1 indicated total disagreement. This was used to register the extent of agreement or disagreement within a particular statement on attitudes, beliefs or judgement (Kothari, 2004). Questionnaire was appropriate for this study as it gave quantitative data that the researcher could use for comparison purposes. The career teachers' questionnaire is attached as Appendix A.

### **3.6.2 Focus Group Discussion for Students**

The students were put in groups of between 6 and 8 and were given discussion questions under the guidance of the researcher. This was used to collect data on motivational strategies used by career teachers to influence students' choice of CS and effectiveness of the motivational strategies used. Focus group discussions enabled the researcher to get students' views on the motivational strategies used to encourage them to choose CS and their effectiveness. The students' focus group discussion is attached as Appendix B.

### **3.6.3 Interview Schedule for Computer Studies Teachers**

Interview schedule is a set of questions that the interviewer asks when interviewing (Gay et al. 2012). Interview schedule for the computer teachers sought information on motivational strategies used by career teachers to influence students to choose CS, perceptions on how the motivational strategies influence students' choice of CS and the effect of using a combination of motivational strategies. Interview schedule was appropriate for this study as it allowed the researcher to get in-depth information from CS teachers. The interview schedule for CS teachers is attached as appendix C.

### **3.7 Pilot Study**

A pilot study was conducted to pre-test the instruments in order to ascertain their reliability and validity. The pilot was conducted in different schools that were not sampled in the main study to prevent contamination error. The pilot study was carried out among 3 career teachers, 3 CS teacher, 8 F4 students and 10 F3 students. The sample size for the pilot study was determined based on the recommendation of Mugenda et al. (2008) that 10% of the sample population is appropriate for piloting.

#### **3.7.1 Reliability**

Reliability is the degree to which scores on the same test are consistent over time. Test- retest method was used to test reliability of the research instruments. The method involved administering the same questionnaire to the same set of respondents within a period of 2 weeks. Mean score for each item answered by each respondent in the first test and second test were worked out. A reliability coefficient index of .82 was established using Pearson's r. Piloting helped the researcher to identify questions and terminologies that were not well understood which were then corrected.

#### **3.7.2 Validity**

Validity is the extent to which an instrument measures what the researcher intends to measure (Sieglinde, 2012). According to Silverman (2012), validity is another word for truth. Face and content validity of the research instruments was ascertained by experts in the area of Psychology and Measurements from the Department of Educational Psychology, Maseno University. Their comments were incorporated to improve the research instruments until an accepted level of validity was achieved. The researcher also made appropriate adjustments after the pilot study in order to improve on the validity.

### **3.8 Data Collection Procedures**

The researcher sought permission to collect data from the National Commission for Science and Technology and Innovation (NACOSTI) through School of Graduate Studies (SGS), Maseno University (Appendix D). The researcher notified County Director of Education - Kisumu County of the intent to collect data from schools that offer CS. The researcher made a visitation to the sampled schools to inform the school administration of the intention to collect data and agree on the data collection date. The researcher then went to the schools for data collection. Prior to data collection, the researcher met the respondents and introduced herself, sought their consent to participate in the research, gave a brief explanation on the study and explained how to go about data collection sessions. During this time, the researcher also interacted with the respondents to create rapport and assure them of utmost confidentiality. The researcher finally administered the questionnaire to the career teacher. Interviews were conducted among CS teachers and finally group discussions were organized and supervised by the researcher as the moderator.

### **3.9 Ethical Considerations**

The researcher first explained to the respondents the nature of the study and the reason for collecting data. This included the importance of the study to both the researcher and respondent. They were made to know that this exercise was voluntary and that confidentiality would be maintained. The results of the findings remained confidential as the respondents did not write their names. A coding only known to the researcher was made and the data was kept in a locked desk whose key only the researcher had. The collected data was then coded into the computer and saved in the researcher's laptop, flash disk and in the researcher's e-mail account. A password only known to the researcher was created to protect the data. The result of the study

was provided to the administration of the schools where the study was carried out so that the respondents could get the report.

### **3.10 Data Analysis**

Data collected was sorted, edited, coded, classified and tabulated. Data on the motivational strategies used by career teachers to influence students' choice of CS was analyzed using percentages. Data on the perceptions on the extent to which motivational strategies influence students' choice of CS was analyzed using means after assigning scores to Likert Scale responses ( Strongly Agree=5, Agree=4, Moderately Agree=3, Disagree=2, Strongly Disagree=1). Mean of means was 4.22 and means above this were considered highly effective. Data on effect of combination of motivational strategies was analyzed using Pearson's r. Qualitative data collected from interview schedules and focus group discussions was transcribed and categorized into groups as per the objectives and presented thematically.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter presents results and discussions of the study based on the following objectives:

- i. Establish motivational strategies used by career teachers to influence students' enrolment for CS in secondary schools in Kisumu County.
- ii. Establish perceptions of Career teachers, Computer Studies teachers and students on the influence of motivational strategies used by career teachers on choice of CS by students in secondary schools in Kisumu County
- iii. Find out effect of combination of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

#### **4.2 Motivational Strategies used by Career Teachers to Influence Students' Choice of CS in Secondary Schools in Kisumu County.**

To establish the motivational strategies used by career teachers to influence students' choice of CS, the researcher presented career teachers with a set of questions. The respondents were to either agree or disagree. Percentage response was worked out after determining frequency counts. Results have been presented in Table 4.1

**Table 4.1: Motivational strategies used by career teachers to influence students' enrolment for CS (n=27)**

Motivational Strategy	Agree f (%)	Disagree f (%)	N (%)
Inviting motivational speakers	17(63.0%)	10(37.0%)	27(100%)
Inviting role models	14(51.9%)	13(48.1%)	27(100%)
Organizing field trips	6(22.2%)	21(77.8%)	27(100%)
Organizing joint activities with neighbouring schools	20(74.1%)	7(25.9%)	27(100%)
Awarding	18(66.7%)	9(33.3%)	27(100%)
Provision of resource materials on relevance of CS	17(63.0%)	10(37.0%)	27(100%)

Results in Table 4.1 indicate that the most commonly used motivational strategy by career teachers to influence students to choose CS was organizing joint activities with neighbouring schools 20(74.1%), followed by awarding 18(66.7%), provision of resource materials on relevance of CS 17(63.0%), inviting motivational speakers 17(63.0%), inviting role models 14 (51.9%), while the least used strategy was organizing field trips 6(22.2%).

On interviewing CS teachers on motivational strategies used by career teachers to influence students to choose CS, 19 (70.4%) said that organizing joint activities with neighbouring schools was the most commonly used, followed by provision of resources 17(63%), awarding 13(54.2%), inviting role models 12(44.4%), inviting motivational speakers 12(44.4%) while organizing field trips was the least used strategy 6(22.2%). The following are some of the responses:

- *“Career teachers always organize joint examinations with neighbouring schools every month. Once in a while motivational speakers and role models are invited. The CS students are also awarded after every exam. But career trips are hardly organized due to cost implications.”*

- *“There are resource materials on importance of CS which career teachers give students to read. Joint exams are also organized at least once every term and if they perform well in CS they are awarded. Trips are however, very expensive and we can hardly afford it.”*
- *“Our students do joint examinations regularly and are exposed to literature on relevance of CS by the career teacher, those who do well in CS are rewarded, I have never seen them go for field trips, maybe there are no funds to support trips”*
- *“Career teacher always organizes contests for CS students and they are awarded depending on their performance. I have also seen motivational speakers invited to speak to them on importance of CS. Sometimes trips are organized but just once in a while”*
- *“Career teacher organizes joint tests for CS students with schools around and the students are given awards afterwards. Former students who excelled in CS are also invited to encourage the students to take the subject. We also have enough CS textbooks and other reading materials on how important the subject is. Since government does not allow collection of money from students, they do not go for trips”*

From the results, it emerged that CS students are mainly awarded for doing well in CS. The following are some of the responses:

*“Those who do well in CS are rewarded.”*

*“Career teacher has CS badges that are given to students who do well in CS*

*“They are awarded with exercise books when they do well in exams.”*

*“Nothing much, may be prizes for doing well in CS.”*

*“When they do well in exams, they are given text books on CS.”*

*“They are also given awards particularly when they perform well in CS joint exams.”*

*“They are awarded depending on their performance.”*

Awarding students only when they perform well in CS may not have a lot of impact since the students who do not do well in the subject would hardly get these awards. This can therefore explain why awarding does not help much in improving enrolment in CS. It would be better if the career teachers found a way of awarding all students for taking CS. The results also show that the awards were mostly in the form of exercise books. Students may not have seen the value in the exercise books and may be felt that they were just given the books because of the extra work that they were to do. It would therefore be better for the career teachers to determine awards that are likely to be appreciated by the students since awarding has been found to be an effective way of motivating students to choose subjects, Lei (2010).

During the focus group discussions, it came out clear that provision of resource materials on relevance of CS in the form of text books, journals and newspapers was the most commonly used motivational strategy while the least used strategy was organizing field trips. The students however said that the teachers mostly used the strategies towards the end of form two when majority of the students had already developed attitude towards subjects. This is similar to findings of Harpur & Quirke (2011) that career guidance was offered towards the end of senior school therefore leaving many of the students regretting not having chosen the subjects leading to their preferred careers. It is therefore important that career guidance and use of motivational strategies to influence students to choose CS be carried out as early as in F1 before students decide on the subjects to choose.

Current findings therefore indicate that organizing joint activities with neighbouring schools and provision of resource material on relevance of CS were the most commonly used to encourage students to enroll for CS. Organizing joint activities was done in the form of joint examinations and symposia. This is similar to findings of Wiley (2013) that facilitating joint discussions was a way of encouraging students to like a subject. Organizing joint activities with neighbouring schools may have registered a high frequency of use among the CS teachers and career teachers since it involves testing which is a way that is embraced by schools in order to gauge the performance of their students against that of students from other schools thereby improving overall performance in examinations. Nilson (2013) also found that teachers placed emphasis on testing and grading to encourage learners to learn science subjects and to improve their performance.

Similarly, provision of resource materials on relevance of CS was found to be the most commonly used. This may have been the case since the resource materials are in the form of textbooks on CS, magazines and newspapers which most schools usually have. It therefore does not come with additional cost. These results are different from those of Ongere (2011) who established that use of motivational speakers was the most commonly used method of guiding students on career choice. He argued that use of motivational speakers was an easily available way. This may not be true as motivational speakers are paid.

Further, the results indicated that organizing field trips was the least used motivational strategy to influence students to choose CS. It is evident that only few career teachers organize field trips. Lack of funds appeared to be the main hindrance in organizing field trips. This seemed to have been compounded by the introduction of free education where collection of money from parents for such activities is prohibited, Basic Education Act (2013).

The current findings echo those of Auni (2011) that lack of resources hinder proper functioning of guidance and counseling departments in secondary schools. It is therefore important that funds be set aside for activities such as field trips that would go a long way in encouraging students to choose CS. This is because organizing field trips is one of the motivational strategies recommended by Hazari, et al. (2013); Khan, et al. (2012) and Richmond (2013) for teachers to use to encourage learners to choose subjects.

It was therefore concluded in the first objective that organizing joint activities and provision of resource materials were the most commonly used motivational strategy to encourage students to choose CS while the least used motivational strategy was organizing field trips.

From the current study, it is evident that teachers use motivational strategies to influence students to choose CS though enrolment for CS is still low. It is therefore necessary to find out factors influencing students' choice of CS in secondary schools in Kisumu County.

### **4.3 Perception of Career Teachers, Computer Studies Teachers and Students on the Influence of Motivational Strategies used by Career Teachers on Students' Choice of CS**

The second objective of the study established perceptions of career teachers, CS teachers and students on the influence of motivational strategies used by career teachers on students' choice of CS.

#### **4.3.1 Perceptions of Career Teachers**

The researcher presented the respondents with a set of questions in a five points Likert scale asking for their opinion on the influence of motivational strategies used by career teachers on students' choice of CS. The various scores for each strategy were added and the mean determined. The scores were allocated as follows: Strongly Agree (SA) =5, Agree (A) =4, Moderately Agree (MA) =3, Disagree (D) =2, Strongly Disagree (SD) =1. Mean of means was

4.22 and a score above this was considered to be highly effective. Table 4.2 shows the results of the findings.

**Table 4.2: Career teachers' perceptions on the influence of motivational strategies on choice of CS by students**

<b>Motivational Strategies</b>	<b>S</b>	<b>A</b>	<b>MA</b>	<b>D</b>	<b>f(%)</b>	<b>S</b>	<b>D</b>	<b>Total</b>	<b>Mean</b>
	<b>f(%)</b>	<b>f(%)</b>	<b>f(%)</b>			<b>f(%)</b>		<b>f(%)</b>	
Inviting motivational speakers	21(77.8)	5 (18.5)	1(3.7)	0(0)		0(0)		27(100)	4.74
Inviting role models	5(18.5)	18(66.7)	4 (14.8)	0(0)		0(0)		27(100)	4.04
Organizing field trips	11(40.7)	16(59.3)	0 (0)	0(0)		0(0)		27(100)	4.41
Organizing joint activities	4(14.8)	15(55.6)	8 (29.6)	0(0)		0(0)		27(100)	3.85
Awarding	11(40.7)	16(59.3)	0(0)	0(0)		0(0)		27(100)	4.41
Providing resource materials on relevance of CS	8(29.6)	11(40.7)	4(14.8)	4(14.8)		0(0)		27(100)	3.85
Mean of means									4.22

From Table 4.2 inviting motivational speakers was perceived to be the most effective motivational strategy used to influence students to enroll for CS with a mean of 4.74. This was followed by organizing field trips and awarding sharing a mean of 4.41, inviting role models

with a mean of 4.04. The least effective motivational strategies were organizing joint activities with neighbouring schools and provision of resource materials on relevance of CS sharing a mean of 3.85.

From the current findings, inviting motivational speakers was the most effective motivational strategy in influencing students' choice of CS with a mean of 4.74. This may have been since it is believed that students take more seriously pieces of advice given by their teachers and then emphasized by qualified personnel that they are not used to. In addition, motivational speakers can easily use techniques that persuade students to agree with them and also give concrete examples on the benefits of doing CS. This is consistent with the findings of Gbollie et al. (2016); Salami (2010) and Gor (2017) who reported that motivational talks are very significant in promoting students' self efficacy hence better performance and decision making. The current findings therefore shows that career teachers feel that inviting motivational speakers is the most effective motivational strategy to influence students' choice of CS.

Awarding and organizing trips were perceived to be the second most effective strategies used by career teachers to encourage students to choose CS sharing a mean of 4.41. This may be so since students value presents and would be encouraged to choose subjects that have awards attached to them. Awards may have scored lower than inviting motivational speakers since most of the time they are in form of exercise books, cash and badges which may not be as appealing as listening to motivational speakers. The results on awarding are consistent with those of Celikoz (2010) who identified awarding as an effective way of motivating students to like a subject. However, Lai (2011) and Keamu (2016) caution that the use of rewards may either encourage or diminish motivation, depending on the type of rewards and the context in which they are given. In the current study, awarding may have been regarded as effective since students focus on tangible

rewards that are based on instant gratification. Nairuba (2011) found that teachers and students are always on the look out to gain fame, to be praised, to be promoted or even to gain material rewards. Considering that there are varying views on the influence of awarding on students' motivation, there is need for further research.

In the same vein, organizing field trips may have been considered to be the second most effective motivational strategy since it involves travelling to places that students may not have been before. Naturally, students in secondary schools enjoy exploring since majority of them are adolescents. The findings of the current study however contradict those of Gor (2017) where only 2(20%) of the 10 career counselors felt that organizing field trips was effective in influencing students' choice of career.

On the other hand, provision of resource materials on relevance of CS and organizing joint activities with neighbouring schools was perceived to be the least effective sharing a mean of 3.85. These strategies may have registered the lowest mean on effectiveness because most of them are held within the school or in neighbouring schools that the students may have visited before and may not therefore be exciting to them. In addition, it is unlikely that students would enjoy reading which comes with the symposia, group discussions and provision of relevant materials. Moreover, few students would enjoy doing joint examinations as they already have a lot of academic work at school. The results of the current study therefore disagree with those of Yunebae (2010) and Science on Stage (2015) that organizing joint practical activities was effective in encouraging students to develop interest in a subject. They further disagree with the results of Gor (2017) that provision of resource materials was effective in guiding students' choice of career.

### 4.3.2 Perceptions of Computer Studies Teachers

On interviewing CS teachers to establish their perceptions on the most and the least effective motivational strategy used by career teachers in influencing students' choice of CS, it came out that inviting motivational speakers was the most effective motivational strategy in influencing students' choice of CS 21(77.8%). Some of the responses are as follows:

- *“Motivational speakers make students active in studying. Through motivational talks students become happy with the subject under study and if well applied even slow learners participate well hence understand the subject.”*
- *“I would say that motivational speakers encourage students the most to choose CS as they give them real life examples on how the subject is important.*
- *“Motivational speakers may be the best as students would want to do what they have seen others succeed in. They usually get to know this from the motivational speakers.”*
- *“If possible, motivational speakers should be invited frequently. I have observed that the students are somehow excited to choose CS after such talks.”*
- *“In my view, motivational speakers do a wonderful job in motivating students to choose CS as they are experienced and know how to persuade.”*
- *“Motivational speakers encourage students the most to choose CS as they hit the nail on the head and are very convincing.”*

Motivational speakers are likely to influence students' choice of CS since they have a wealth of knowledge of the career world which they use to show the importance of CS. They also are trained in persuasion techniques. This is consistent with the findings of Mpofu (2009); Gbollie et al. (2016) and Salami (2010) who reported that motivational talks are very significant in promoting students' self efficacy hence better performance and decision making. The current

findings however disagree with those of Robinson (2015) who reported that awarding was the most effective motivational strategy in influencing students' performance, hence subject choice.

Further, it emerged that field trips were enjoyed by students and were therefore considered the second most effective motivational strategy in influencing students' choice of CS 4(14.81%).

The following are the responses:

- *“We know that students love trips and as such, I think they are the best strategy.”*
- *“I would rather the career teacher used field trips which students enjoy and are likely to be motivated to choose the subject.”*
- *“Students would obviously choose a subject where many field trips are organized.”*
- *“Outings of whatever nature are enjoyed by students. I believe use of field trips would influence their choice of CS greatly.”*

The findings of the current study agree with those of Pavol, et al. (2007) that field trips have a significant influence on students' choice of Biology. This is likely to be the case since secondary school students are adolescents and would naturally want to explore. This is particularly true for students in boarding schools who would take advantage of any opportunity to get out of the school compound just to change environment. Hooley (2015) indicated that changing learning environment is a very effective way of encouraging students to like a subject.

When their opinion was sought on the least effective motivational strategy used by career teachers in influencing students' choice of CS, CS teachers said it was provision of resource materials on relevance of CS 17(63%). It was noted that students did not like the idea of reading and only read for exams. The following are the reports:

- *“The least effective could be provision of reading materials on relevance of CS since students are lazy and may not even take their time to read them.”*
- *“Provision of resource materials on the other hand is the least effective as students do not like reading.”*
- *“Students are pushed to read and so I believe they do not even read the literature on relevance of CS which is available in the library”*
- *“Provision of resource materials is a no for me. Truth be said, students read only for exams.”*
- *“Due to a lot of academic work, it may not be very easy for a student to read anything outside what is tested. I feel provision of resource materials does not help much.”*
- *“If the students were to benefit from the available resources on the relevance of CS, then someone would have to collect them and have them read. This does not happen and so I believe it does not help much.”*

From the findings, CS teachers believed that students do not like reading and would only read what is to be tested. As such, they viewed provision of resource materials on relevance of CS as the least effective motivational strategy used by career teachers in influencing students' choice of CS. The current findings differ with those of Albrecht, et al. (2009) that provision of adequate reading materials on a subject was an effective way of making students like the subject. In my view, provision of resource materials on relevance of CS may not have been effective because the current education system has a lot of work load and is examinations oriented.

It also emerged that organizing joint activities such as symposia, tests and discussions were not taken seriously by students as they are organized for all subjects and students do not enjoy doing exams. The following are the reports:

- *“Things like symposia, joint tests do not do much as this is done for almost all subjects.”*
- *“Joint exams would score the least in this case as it is just a routine. Most of the time they come in the form of examinations which the students fear”*
- *“I however believe that organizing joint activities is not effective at all. They are mostly tests which cannot be fun.*
- *“Organizing joint activities with neighbouring schools is the least effective as it involves joint exams majorly. Which student enjoys doing exams?”*

From the findings, joint activities with neighbouring schools are mostly done in form of examinations. Naturally, students fear examinations. It is therefore not surprising that organizing joint activities was considered not effective in encouraging students to choose CS.

#### **4.3.3 Perceptions of Students**

During the focus group discussions, the students were asked cite the most and the least effective motivational strategy, giving reasons for their response. It emerged that organizing field trips was the most effective motivational strategy used by career teachers to influence students’ choice of CS while the least effective strategy was providing resource materials on importance of CS.

The following are the responses:

- *“I think organizing field trips to various places for CS students is the best strategy. Students love to explore. The least effective is provision of resource materials on CS. Do we even have time to read them?”*
- *“If the career teacher could organize field trips to ICT organizations regularly, we would get to know how interesting it is to do CS and this would encourage many more students to take CS. The tests are however, boring.”*

- *“Career teachers should organize fieldtrips because they are enjoyable. We would love a subject with the most trips. As for books on relevance of CS, they do not help. We already have too much to read.”*
- *“Who does not like going out of school? Trips are the best way of motivating us students to choose CS. I actually chose CS because of the trip that was organized when I was in F2 to a computer college. I was inspired by the fun in working with computers. I would however say that I do not enjoy reading and therefore for me, provision of materials on relevance of CS does not help.”*
- *“Motivational speakers tell us a lot about the world of work and why it is good that we do CS. This in my view is the best strategy. I also do not mind presents given to us for choosing CS but I would say that joint activities like symposia and tests do not do much.”*
- *“When I visited the Coca-Cola Factory with our career teacher, I got interested in doing CS since almost all operations were computerized. I understood that computer literacy was very important. On the other hand, I have never realized any motivation in reading materials on CS.”*

From the findings, students perceived organizing field trips as the most effective motivational strategy. This may have been so since it involves travelling to places that the students may not have been before and since they are adolescents, they like exploring and would naturally be motivated by such trips, Gross (2010). This is consistent with the findings of Hooley (2015) that changing learning environment is a very effective way of encouraging students to like a subject. Likewise Pavol, et al, (2007); Ajaja (2010) found that use of field trips was very effective in influencing students to learn Biology. However, career teachers perceived organizing field trips as the second most effective and inviting motivational speakers as the most effective

motivational strategy. This difference could have arisen since students being adolescents, like exploring but teachers believe that having direct motivational talks on importance of CS would be more effective. This could also explain the low enrolment for CS since organizing field trips which was perceived by students to be the most effective was the least used. This difference in perceptions is not unique to this study. Bouras (2011) in a study on impact of stability on students' motivation discovered that students and teachers had different perceptions effectiveness of motivational strategies.

Provision of resource materials on relevance of CS was perceived as the least effective motivational strategy. It therefore means that students, career teachers and CS teachers perceived providing resource materials on relevance of CS as the least effective. This may be the case because provision of resource materials requires that the students read more literature apart from what is tested. From the findings, it is evident that students would not read these materials because of lack of time or poor reading culture. It is therefore expected that provision of resource materials on relevance of CS would be considered ineffective. This view is supported by KNEC (2014) which observed that performance in English was affected by technology that makes students prefer watching television to reading. These findings concur with the findings by Albrecht, et al. (2009) that students prefer extrinsic motivation to intrinsic motivation like provision of adequate reading materials and showing relevance of the subject to their future careers. It however, disagrees with the findings by Ndalichako & Komba (2014); Curran et al. (2006); Albrecht, et al. (2009) and Yunabeae (2010) which indicated that providing students with materials showing relevance of subjects to their future careers was among the major reasons for students' preference of a particular subject. In fact, according to Wilhelm (2004), students are four times more likely to choose a class where they have the opportunity to learn a lot of

knowledge even if the class requires a lot of readings and assignments. Nevertheless, provision of resource materials as a strategy should not be abandoned but instead reading culture should be developed in the students. Due to the varied findings, it is necessary that further study be carried out on effectiveness of provision of resource materials on students' motivation.

It was therefore concluded that organizing field trips and inviting motivational speakers were the most effective motivational strategies in influencing students' choice of CS. The most commonly used motivational strategy (provision of resource materials on relevance of CS) was perceived to be the least effective in influencing students' choice of CS. This may explain the low enrolment in CS despite the use of motivational strategies by career teachers to influence students' choice of CS.

#### **4.4 Effect of Combination of Motivational Strategies used by Career Teachers on Students' Choice of CS**

In this objective, the researcher sought to find out the effect of combination of motivational strategies on students' choice of CS. To be able to do this, the researcher used percentage enrolment in CS in F3 and F4. This was done by finding the percentage of the number of students enrolled for CS in F3 and F4 against the total number of students in F3 and F4 in the various computer schools. Motivational strategies used were then compared with the percentage enrollment in CS. The results are shown in Table 4.3. Further, the effect of combination of strategies on students' choice of CS was determined by carrying out Pearson's product moment correlation using students' enrolment in CS and the motivational strategies used in each school. The results are presented in Table 4.4.

**Table 4.3: Percentage enrolment in CS in computer schools in 2017**

<b>S.NO of school s</b>	<b>Motivational strategies used</b>	<b>Enrolment in CS in F3&amp;F4</b>	<b>Total enrolment in F3&amp;F4</b>	<b>% Enrolment in CS</b>
1	Provision of resource materials	1	167	0
2	Provision of resource materials	1	119	0
3	Provision of resource materials	1	90	0
4	Provision of resource materials	1	80	0
5	Provision of resource materials	1	413	0
6	Provision of resource materials	1	353	0.28
7	Organizing joint activities, awarding, provision of resource materials	24	537	4.47
8	Inviting motivational speakers, organizing joint activities, awarding	42	506	8.30
9	Inviting motivational speakers, organizing joint activities	43	338	12.72
10	Inviting motivational speakers, inviting role models, trips, organizing joint activities, awarding	23	271	8.49
11	Inviting motivational speakers, inviting role models, organizing joint activities, awarding, provision of resource materials	26	425	6.18
12	Inviting motivational speakers, role models, trips, organizing joint activities, awarding, providing resource materials	51	821	6.21
13	Inviting motivational speakers, inviting role models, organizing	52	421	12.35

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	joint activities, awarding, provision of resource materials			
<b>14</b>	Inviting role models, organizing trips, organizing joint activities, awarding, provision of resource materials	25	430	5.81
<b>15</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials	34	428	7.94
<b>16</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials	17	283	6.01
<b>17</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, organizing trips	25	694	3.60
<b>18</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials	48	532	9.02
<b>19</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials, organizing trips	26	211	12.32
<b>20</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials, organizing trips	51	694	7.92
<b>21</b>	Inviting motivational speakers, role models, organizing joint activities,	25	285	8.77

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	awarding, provision of resource materials			
<b>22</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials	21	173	12.14
<b>23</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials	15	136	11.02
<b>24</b>	Inviting motivational speakers, role models, organizing joint activities, awarding, provision of resource materials, organizing trips	27	126	21.42
<b>25</b>	Inviting role models	7	388	1.80
<b>26</b>	Organizing joint activities, awarding, provision of resource materials,	16	684	2.34
<b>27</b>	Organizing joint activities, provision of resource materials	6	244	2.46

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According to Table 4.3, combination of motivational strategies has an effect on enrolment. Enrolment in CS was highest (21.42%) in schools that used all the six strategies to influence students' choice of CS. Interestingly, the percentage enrolment is quite high (12.72%) where only inviting motivational speakers and organizing joint activities were used. This supports career teachers' and CS teachers' perception that inviting motivational speakers is the most effective strategy in influencing students' choice of CS. This is further proved when enrolment is seen to be remarkably low when only two or three motivational strategies excluding inviting

motivational speakers were used; 2.46% and 2.34% respectively. Furthermore, enrolment in CS was found to be lowest when only one motivational strategy was used (0%).

**Table 4.4: Correlation for combinations of Motivational Strategies Used and Enrolment of F3 and F4 students in CS in computer Schools**

		Motivational strategies	Enrolment
Motivational strategies	Pearson Correlation	1	.557**
	Sig. (2-tailed)		.003
	N	27	27
Enrolment	Pearson Correlation	.557**	1
	Sig. (2-tailed)	.003	
	N	27	27

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Results in Table 4.4 indicated that there was a positive and significant relationship between the combination of motivational strategies used and students' enrolment in CS  $r=0.56$ ,  $P=0.003$ . The results show that the more the motivational strategies used the higher the enrolment in CS despite the fact that N was small. Since the effect is significant with a small N of 27 at 0.1, it means that the size of the difference is large enough to compensate for the larger width. The significance would therefore be greater with a larger population.

In the current study, motivational strategies were found to be highly effective when combined since different individuals are motivated by different strategies so enrolment would be high when more than one strategy is used. The results echo those of Margolis and McCabe (2006) who found that use of more than one strategy was more effective in improving students' self-efficacy

hence their choice. However, Hazari, et al. (2013) concluded that there was no detectable combined effect for multiple conditions acting simultaneously.

The study therefore concluded that the more the motivational strategies used, the higher the enrolment as there was a positive and significant relationship between the combination of motivational strategies used and students' enrolment in CS  $r=0.56$ ,  $P=0.003$ .

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter contains summary of the research findings, conclusions of the study and recommendations.

#### 5.2 Summary

Summary of the findings is presented based on the following objectives:

- i. Establish motivational strategies used by career teachers to influence students' enrolment for CS in secondary schools in Kisumu County.
- ii. Establish perceptions of Career teachers, Computer Studies teachers and students on the influence of motivational strategies used by career teachers on choice of CS by students in secondary schools in Kisumu County
- iii. Find out effect of combination of motivational strategies used by career teachers on students' choice of CS in secondary schools in Kisumu County.

##### 5.2.1 Motivational Strategies used by Career Teachers to Influence Students' Choice of CS

This objective sought to establish the motivational strategies used by career teachers to influence students' choice of CS. From the results in Table 4.1 career teachers felt that the most commonly used motivational strategy by career teachers to influence students to choose CS was organizing joint activities with neighbouring schools 20(74.1%). This was followed by awarding 18(66.7%), provision of resource materials on relevance of CS 17(63.0%), inviting motivational speakers 17(63.0%), inviting role models 14 (51.9%). The least used strategy was organizing field trips 6(22.2%). According to CS organizing joint activities with neighbouring schools was the most commonly used motivational strategy to influence students' choice of CS, 19 (70.4%). This was

followed by provision of resources 17(63%), awarding 13(54.2%), inviting role models 12(44.4%), inviting motivational speakers 12(44.4%). Organizing field trips was the least used strategy 6(22.2%). On the other hand, students felt that provision of resource materials on relevance of CS was the most commonly used strategy, followed by awarding, organizing joint activities with neighbouring schools, inviting motivational speakers and inviting role models. The strategy that was used the least was organizing field trips.

It was therefore established that organizing joint activities with neighbouring schools and provision of resource materials on relevance of CS were the most commonly used while organizing field trips was the least used motivational strategy to influence students' enrolment in CS.

### **5.1.2 Perceptions of Career Teachers, Computer Studies Teachers and Students on the Influence of Motivational Strategies used by Career teachers on Students' Choice of CS**

This objective sought to establish perceptions of career teachers, computer studies teachers and students on the influence of motivational strategies used by career teachers on students' choice of CS.

#### **5.1.2.1 Perceptions of Career Teachers**

According to career teachers, inviting motivational speakers was the most effective motivational strategy used to influence students to choose CS with a mean of 4.74. This was followed by organizing field trips and awarding with a mean of 4.41, inviting role models with a mean of 4.04. The least effective motivational strategies were organizing joint activities with neighbouring schools and provision of resource materials sharing a mean of 3.85. (Table 4.1)

It was therefore established that inviting motivational speakers was perceived to be the most effective motivational strategy by career teachers while the least effective was organizing joint activities with neighbouring schools.

#### **5.1.2.2 Perceptions of Computer Studies Teachers**

CS teachers perceived inviting motivational speakers as the most effective motivational strategy used by career teachers to influence students' choice of CS 21(77.8%). This was followed by organizing field trips 4(14.81%) while the least effective motivational strategy was provision of resource materials 17(63%).

It was therefore established that according to CS teachers, inviting motivational speakers was the most effective while organizing field trips was the least effective motivational strategy by career teachers to influence students' choice of CS.

#### **5.1 2.3 Perceptions of Students**

Students perceived organizing field trips as the most effective motivational strategy used by career teachers to influence students' choice of CS, followed by inviting motivational speakers, awarding, organizing joint activities with neighbouring schools, inviting role models, while the least effective strategy was providing resource materials on relevance of CS.

It was concluded that students perceived organizing field trips as the most effective while provision of resource materials as the least effective motivational strategy used by career teachers in influencing students' choice of CS.

On the second objective, the researcher therefore established that inviting motivational speakers and organizing field trips were the most effective motivational strategies in influencing students' choice of CS. On the other hand, provision of resource materials on relevance of CS and

organizing joint activities with neighbouring schools were the least effective motivational strategies.

### **5.1.3 Effect of Combination of Motivational Strategies used by Career Teachers on Students' Choice of CS**

It was found out that the more the motivational strategies used, the higher the enrolment as there was a positive and significant relationship between the combination of motivational strategies used and students' enrolment in CS  $r=0.56$ ,  $P=0.003$ .

## **5.2 Conclusions**

From the current study's findings the following conclusions were made based on the objectives.

### **5.2.1 Motivational Strategies used by Career Teachers to Influence Students' Choice of CS**

It was established that organizing joint activities with neighbouring schools and provision of resource materials on relevance of CS were the most commonly used while organizing field trips was used the least.

### **5.2.2 Perceptions of Career Teachers, Computer Studies Teachers and Students on the Influence of Motivational Strategies used by Career Teachers on Students' Choice of CS.**

#### **5.2.2.1 Perceptions of Career Teachers**

It was established that inviting motivational speakers was perceived to be the most effective motivational strategy by career teachers while the least effective was organizing joint activities with neighbouring schools.

#### **5.2.2.2 Perceptions of Computer Studies Teachers**

It was established that CS teachers perceived inviting motivational speakers to be the most effective while provision of resource materials on relevance of CS was the least effective motivational strategy in influencing students' choice of CS.

### **5.2.2.3 Perceptions of Students**

It was established that the students perceived organizing field trips as the most effective while provision of resource materials on relevance of CS was the least effective motivational strategy in influencing students' choice of CS.

It was however noted that the most commonly used motivational strategy was perceived to be the least effective while the least used strategy was considered to be the most effective. This may have contributed to the low enrolment.

It was therefore concluded that inviting motivational speakers and organizing field trips were the most effective while provision of resource materials was the least effective motivational strategy in influencing students' choice of CS.

### **5.2.3 Effect of Combination of Various Strategies used by Career Teachers on Students'**

It was found out that the more the motivational strategies used, the higher the enrolment as there was a positive and significant relationship between the combination of motivational strategies used and students' enrolment in CS  $r=0.56$ ,  $P=0.003$ .

## **5.3 Recommendations**

Based on the study's findings the following recommendations were made:

- i. Schools to use effective motivational strategies such as organizing field trips and inviting motivational speakers to encourage students to choose CS and if possible they should be used right from form one.
- ii. Schools to invite motivational speakers and organize field trips regularly to encourage students to choose CS.

- iii. In motivating students to choose CS, schools should combine motivational strategies which is likely to be more effective.

#### **5.4 Suggestions for Further Research**

From the study's findings the following gaps emerged and were thus recommended for further research;

- i. Factors influencing students' choice of CS by students in secondary schools in Kisumu County.
- ii. Effectiveness of awarding on choice of CS among students in secondary schools in Kisumu County, Kenya.
- iii. A correlational study on influence of combination of motivational strategies on students' choice of CS in secondary schools in Kisumu County.

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## **APPENDICES**

### **APPENDIX A: CONSENT FORM**

Carefully study the following information before consenting to take part in the study.

#### **STUDY TITLE**

PERCEPTIONS ON INFLUENCE OF MOTIVATIONAL STRATEGIES ON STUDENTS' CHOICE OF COMPUTER STUDIES IN SECONDARY SCHOOLS IN KISUMU COUNTY, KENYA.

**UNIVERSITY** : MASENO UNIVERSITY  
**RESEARCHER** : OYOO MONICA ANNE ACHIENG  
**SUPERVISORS** : DR. WYCLIFFE H. ODIWUOR  
DR. ERIC K. KABUKA

#### **INVITATION**

You are being asked to take part in this research study entitled Perceptions on Influence of Motivational Strategies on Students' Choice of Computer Studies in Secondary Schools in Kisumu County, Kenya. Whether you take part or not is your choice. If you do not want to take part, you do not have to give a reason. You can pull out of the study if you want to take part now but later change your mind.

This sheet will help you decide whether you would like to take part. It sets out why this study is being conducted, what your participation would involve, what benefits and risks might be for you and what may happen after the study ends. I will go through this information with you and answer any questions you may have.

If you agree to take part in the study, you will be asked to sign the consent form at the end of this document. You will be given a copy of both the participants' information sheet and the consent form to keep.

#### **WHAT IS THE PURPOSE OF THE STUDY?**

Computer Studies is very important yet there has been very low enrolment in the subject in Kisumu County. Given that career teachers can encourage students to choose a subject, the researcher wishes to establish the motivational strategies used by career teachers to encourage students' enrolment for Computer studies and their influence on students' choice of Computer Studies.

## **WHAT WILL HAPPEN?**

You will be asked to answer questions / fill the questionnaire given to you.

## **TIME COMMITMENT**

It will take approximately 40 minutes to answer the questions.

## **PARTICIPANTS' RIGHTS**

You may stop being part of the study at any time without explanation. You also have the right to request that any information you have given be destroyed or withdrawn without any penalty.

If you have any questions as a result of reading this information sheet, you should ask the researcher before the study begins.

## **BENEFITS AND RISKS**

There are no specific benefits to you. However, your participation may benefit future generations by helping the Ministry of Education, school administration and career teachers to find a solution to the low enrolment in Computer Studies. There are no risks for you.

## **COST, REIMBURSEMENT AND COMPENSATION**

Your participation in this study is voluntary and you will not be paid or compensated.

## **CONFIDENTIALITY/ANONYMITY**

The data we collect do not contain any personal information about you. No one will link you to the data you supplied.

## **FOR FURTHER INFORMATION**

Please feel free to contact the researcher or the supervisors if you have any questions, concerns or complaints about the study or if you want to find out the results of the study on the contact addresses below

Researcher: Oyoo Monica Anne Achieng. E-Mail address: [linioyoo@gmail.com](mailto:linioyoo@gmail.com)  
[Tel:0724438418](tel:0724438418)

Supervisors: Dr Wycliffe H. Odiwuor. E-Mail address: [odwicky@yahoo.com](mailto:odwicky@yahoo.com) [Tel:1722430847](tel:1722430847)

Dr. Eric K. Kabuka E-Mail address: [erickiango@yahoo.co.in](mailto:erickiango@yahoo.co.in) [Tel:0736793371](tel:0736793371)

By signing below, you are agreeing that:

- (1) You have read and understood all the information above

- (2) Questions about your participation in this study have been answered satisfactorily
- (3) You are aware of the potential risks (if any)
- (4) You are taking part in this study voluntarily

**Declaration by the participant:**

I do hereby consent to take part in this study

Participant's Name-----

Signature----- Date-----

--

**Declaration by the researcher**

I have given verbal explanation of the research to the participant and have answered questions about it. I believe that the participant understands the study and has given informed consent to participate.

Researcher's Name-----

Signature ----- Date-----

**APPENDIX B: CAREER TEACHERS' QUESTIONNAIRE**

The following questionnaire is intended to collect data on the influence of Motivational Strategies used by Career teachers on Students' Choice of Computer Studies. Provide information by putting a tick in the parentheses provided. Information given will be treated with utmost confidentiality.

**SECTION A**

**DEMOGRAPHIC INFORMATION**

1. Name of the school.....
2. Number of students doing Computer Studies
  - i. Form three.....
  - ii. Form four.....
3. Total number of students in form four and form three.....

**SECTION B**

**The following are strategies that you use to motivate students to choose Computer Studies in your school.**

1. Inviting teachers from schools where students' enrolment in Computer Studies is high to encourage the students to choose Computer Studies  
[ ] Agree                      Disagree [ ]
2. Inviting lecturers from computer colleges to explain to the students the benefits of doing Computer Studies in order to encourage them to choose Computer Studies  
Agree [ ]                      Disagree [ ]
3. Inviting motivational speakers to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]

4. Inviting secondary school students doing Computer Studies in neighbouring schools to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
5. Inviting students from computer colleges to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
6. Inviting people who have successful careers in ICT to encourage students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
7. Organizing visits to schools where students perform well in Computer Studies to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
8. Organizing visits to computer colleges to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
9. Organizing visits to companies that use ICT in their operations to motivate students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
10. Organizing joint practical lessons in Computer Studies in neighbouring schools to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]
  
11. Organizing Computer Studies symposia in neighbouring schools to encourage the students to choose Computer Studies  
Agree [ ]                      Disagree [ ]

12. Organizing joint Computer Studies tests in neighbouring schools to encourage students to do Computer Studies

Agree [ ]

Disagree [ ]

13. Awarding students who have performed well in Computer Studies with certificates to encourage the other students to choose Computer Studies

Agree [ ]

Disagree [ ]

14. Awarding students who have performed well in Computer Studies with cash to encourage the others to take Computer Studies

Agree [ ]

Disagree [ ]

15. Awarding students who have performed well in Computer Studies with subject badges to encourage the others to choose Computer Studies

Agree [ ]

Disagree [ ]

16. Providing students with books that explain the relevance of Computer Studies so that they enroll for Computer Studies

Agree [ ]

Disagree [ ]

17. Providing the students with journals on relevance of Computer Studies to various careers to encourage them to choose Computer Studies

Agree [ ]

Disagree [ ]

18. Exposing the students to newspaper articles on the importance of Computer Studies to encourage them to choose Computer Studies

Agree [ ]

Disagree [ ]

## SECTION B

The following strategies used by career teachers influence students' choice of Computer Studies.

Key: SA-Strongly Agree A- Agree MA-Moderately Agree D-Disagree SD- Strongly Disagree

Motivational strategy	SA	A	MA	D	SD
Inviting motivational speakers to talk to students about Computer Studies					
Inviting teachers from schools where enrolment in Computer Studies is high to encourage students to take Computer Studies					
Inviting Students who do Computer Studies to encourage students to take Computer Studies					
Awarding students who have performed well in Computer Studies with Computer Studies textbooks to encourage the others to take Computer Studies					
Awarding students who have performed well in Computer Studies with cash to encourage the others to take Computer Studies					
Availing magazines on Computer Studies for students to know importance of Computer Studies					
Availing newspapers articles on importance of Computer Studies to encourage students to enroll for Computer Studies					
Availing enough Computer Studies textbooks to encourage students to study Computer Studies					
Organizing Computer Studies symposia with neighbouring schools to encourage students to like Computer Studies					
Organizing joint practical Computer Studies lessons with neighboring schools to make students like Computer Studies					
Organizing joint Computer Studies tests with neighbouring schools to make students enjoy learning Computer Studies					
Visiting Computer colleges to make students know importance of Computer Studies					
Visiting schools where enrolment in Computer S is high to encourage students to encourage students to enroll for Computer Studies					
Visiting companies that use ICT extensively					

### ***APPENDIX C: FOCUSED GROUP DISCUSSION FOR STUDENTS***

1. Which of the following motivational strategies does your career teacher use to encourage you to choose CS?

- Inviting motivational speakers
- Inviting role models
- Organizing field trips
- Organizing joint activities with neighbouring schools
- Awarding
- Provision of resource materials on relevance of CS

2. If you were to rank the motivational strategies used by your career teacher to encourage you to choose Computer Studies based on their effectiveness in influencing your choice of Computer Studies. Which one would you say is the most effective and which one the least effective? Why?

## ***APPENDIX D: INTERVIEW SCHEDULE FOR COMPUTER STUDIES TEACHER***

1. Which of the following Motivational Strategies are used by the career teacher to motivate students to choose Computer Studies in your school?
  - Inviting motivational speakers
  - Inviting role models
  - Organizing field trips
  - Organizing joint activities with neighbouring schools
  - Awarding
  - Provision of resource materials on relevance of CS
  
2. How would you rank the Motivational Strategies used by the career teacher to encourage students to choose Computer Studies based on their effectiveness in influencing students' choice of Computer Studies based on the most effective and the least effective?

**APPENDIX E: RESEARCH AUTHORIZATION**



**NATIONAL COMMISSION FOR SCIENCE,  
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,  
2241349, 3310571, 2219420  
Fax: +254-20-318245, 318249  
Email: [dg@nacosti.go.ke](mailto:dg@nacosti.go.ke)  
Website: [www.nacosti.go.ke](http://www.nacosti.go.ke)  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/10633/16759**

Date: **8<sup>th</sup> May, 2017**

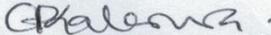
Monica Anne Achieng Oyoo  
Maseno University  
Private Bag  
**MASENO.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Influence and challenges of motivational strategies used by career teachers on students’ choice of computer studies in secondary schools in Kisumu County, Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Kisumu County** for the period ending **5<sup>th</sup> May, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Kisumu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

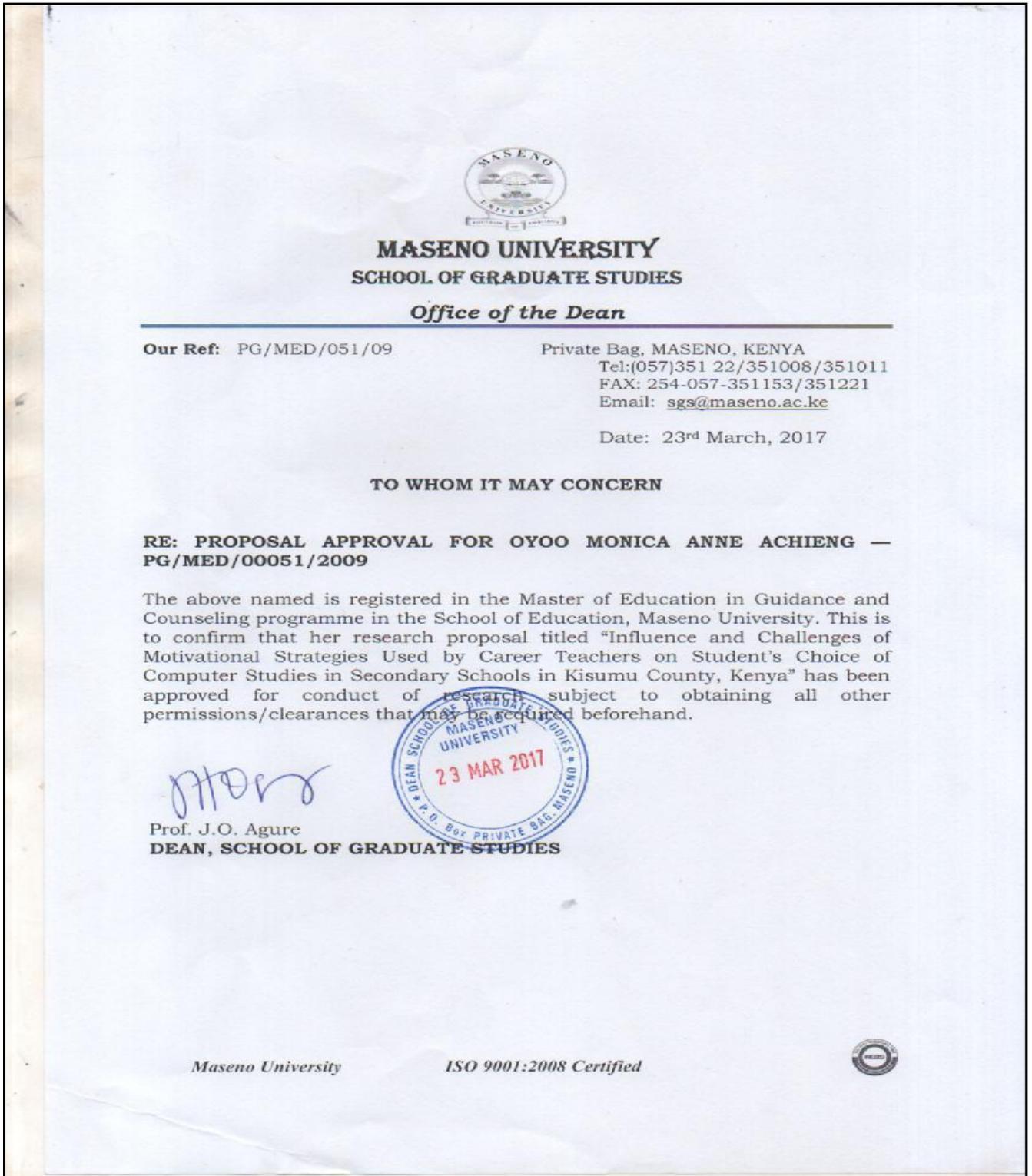
  
**GODFREY P. KALERWA MSc., MBA, MKIM**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Kisumu County.

The County Director of Education  
Kisumu County.

**APPENDIX F: PROPOSAL APPROVAL**



**APPENDIX G: A MAP OF KISUMU COUNTY**

