



## EFFECTS OF COOPERATIVE LEARNING STRATEGY ON STUDENTS' ACADEMIC ACHIEVEMENT AND MOTIVATION IN HISTORY AND GOVERNMENT IN CO-EDUCATIONAL SECONDARY SCHOOLS IN BARINGO CENTRAL SUB-COUNTY, KENYA

Victor Boiwo<sup>1</sup>, Dr. Esther Kimosop<sup>2</sup>, Dr. Fr. Gerishon Kuria<sup>2</sup>

<sup>1</sup>Degree of Master of Education in Curriculum & Instruction of Egerton University

<sup>2</sup>Department of Curriculum Instruction and Educational Management, Egerton University

<sup>2</sup>Department of Philosophy, History and Religious Studies, Egerton University

### ABSTRACT

History and Government is an important subject in the Kenyan curriculum as it has social, economic and political impact in our lives. Despite its importance, students' mean score for History and Government in KCSE nationally and in Baringo central sub county from the year 2016- 2019 is well below 50%. Students' motivation to learn the subject is also low therefore the study seeks to assess the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in co-educational secondary schools in Baringo central county. Quasi-experimental research design, specifically Solomon-Four Non-Equivalent Control Group Research Design was used. The target population was all Form Two students in co-educational sub-county public secondary schools in Baringo central sub-county which is 1014 students while the accessible population was Form Two students in co-educational sub-county public secondary schools in Baringo central sub county which is 158 students. Purposive sampling was used to obtain a sample of four Co-educational sub-county public Secondary Schools. The instruments used in the study were History and Government Student Achievement Test (HGSAT) and History and Government Motivation Questionnaire (HGMQ). All instruments were pilot-tested in secondary schools within Baringo central sub-county but in a division that was not be included in the study with but similar characteristics as the sampled schools. Using KR-21 formulae, HGSAT yielded a reliability coefficient of 0.871 while using the cronbach alpha, HGMQ yielded 0.716 which were above the recommended threshold of 0.7. Data were analysed using t-test, ANOVA and ANCOVA. The findings of this study indicated that the use of CLS enhances students' academic achievement and motivations learn History and Government better than conventional teaching methods. The study therefore recommends that History and Government teachers should integrate the use of CLS in their teaching and MOE to in-service secondary school teachers on the use of CLS.

**Keywords:** Cooperative Learning Strategy, Students' Academic Achievement, Motivation to Learn History and Government, Co-Educational Secondary Schools

### INTRODUCTION

History and Government is an important subject in the Kenyan curriculum as it has social, economic and political impact in our lives. Nasibu (2016) postulates that the study of the subject helps us to understand what happened in the past and what is currently happening in the current society thus giving room to plan for a better future. It also helps us understand human beings' past activities and how they are managing their day to day affairs. Good performance

in History and Government is key as it determines the choice of career such as Law, diplomacy, church, politics, teaching, political leaders, administrators etc. (Chabala, 2017). Knowledge of History and Government is also very key in solving some of the challenges facing the society ranging from poor leadership, corruption, tribalism and nepotism, lack of patriotism and national pride, ethnic violence, lack of democracy, hate speech, mass rigging in election, unequal distribution of resources, discrimination on basis of gender, racism and insecurity (Coltham 2017).

An educational research done in the United States of America(2017) showed that few students' choose History beyond the age of 14, many opting out of History due to poor teaching methods used by History teachers (Faupel , 2017). The author further remarks that the choice of a teaching strategy directly affects students' achievement and motivation. In England, academic performance in the subject is below average and students' attitude towards the subject is poor and many have the notion that History does not contribute much towards economic development hence many prefer science subjects over History (steel, 2016).

It is also of great concern to note that students' academic achievement and attitude towards History in African countries is poor. Following a meeting by education officials in Johannesburg South Africa held in 2018, it was noted that students' low academic achievement and lack of interest to learn the subject is directly influenced by the type of teaching strategy used by the teachers (Borg, 2018). The author further found teacher centred methods like lecture method has shown to be one of the most unpopular and ineffective methods when it comes to content delivery as it causes intellectual passivity of listeners because it offers limited opportunity for creativity and critical thinking. According to West African Examination Council (WAEC) report of 2019, students' performance in History examinations is still below average. This can be attributed to ineffective teacher centred methods where the learners are passive and the teacher dominates the all lesson (Osokoya, 2019).

In the Kenyan case, when the secondary school History and Government curriculum was formulated and developed at K.I.E in 1963, the emphasized strategies became teacher and book centred. The teacher and the textbook acted as the absolute authority on knowledge of History and Government (Githara, 2017). KICD (2019) contends that learning activities in most Kenyan classrooms centre on the use of textbooks and past examination papers. As a result of this, the learning process is characterized by transmission and memorization of facts given by the teacher. This makes the content boring, abstract and demotivating, thus affecting students' achievement and motivation in History and Government. For many years, History and Government syllabus has undergone several changes aimed at finding the best strategy for teaching and learning the subject. The persistent low performance in the subject however may suggest that appropriate and effective strategy of teaching History and Government has not been realised. Wenslinsky (2017) reasons that high academic achievement goes together with classroom practices of the teacher. The way a teacher delivers the instructional process affects students' values, interest and behaviour to learn History and Government. Huber (2017) proposed that quantitative and qualitative research studies be carried out to investigate students' preferences for teaching methods. Despite, History and Government being one of the most important discipline in the Kenyan curriculum, students' academic achievement in the subject is still below average as attested by the reports from Kenya National Examinations Council results (KNEC, 2019) as shown in Table 1

**Table 1: KCSE History and Government Performance for the Last Four Years Nationally**

| <b>Year</b>        | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> |
|--------------------|-------------|-------------|-------------|-------------|
| <b>Candidature</b> | 394,086     | 421,311     | 458, 230    | 541,200     |
| <b>Mean score</b>  | 43.72       | 41.25       | 41.01       | 40.06       |

**Source: (KNEC Examination report 2019)**

The results of Table 1 shows that students' achievement in History and Government nationally has continually decreased over the years. The highest overall score was 43.72 in the year 2016 and the least score being 40.06 recorded in the year 2019. In Baringo Central sub-county where this study is intended to be carried out, students' performance in History and Government is also poor, as shown in Table 2

**Table 2: KCSE History and Government Performance for the Last Four Years in Baringo Central Sub-County**

| <b>Year</b>        | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> |
|--------------------|-------------|-------------|-------------|-------------|
| <b>Candidature</b> | 11,800      | 12,400      | 12,687      | 14,500      |
| <b>Mean score</b>  | 38.45       | 34.36       | 36.36       | 36.02       |

**Source: (KNEC Examination report 2019)**

Table 2 indicates a declining trend in students' academic achievement in History and Government for the past four years. The highest overall score was 38.45 in the year 2016 and the least score being 34.36 recorded in the year 2017 (KNEC, 2018). There is need therefore to investigate the reasons behind the dismal performance in the subject and suggest means of improving the results. It is also of great concern to note that the students' enrolment in History and Government nationally and in Baringo central sub-county for four consecutive years has been rising while the performance has never reached a mean score of 50 %.

There are a number of reasons that have been raised to explain the poor students' achievement in History and Government. Kizlik (2019) attributes the poor performance due to the use of lecture method where teachers take full control of the learning process and the students are given little room to give their input. As a result of this, the learning process is characterized by transmission and memorization of facts given by the teacher (Johnson and Johnson, 2016). This makes the content boring, abstract and demotivating, thus affecting students' achievement and motivation in History and Government. Curzon (2016) argues that teaching strategies like problem based learning, Cooperative Learning Strategy and guided instruction can influence students' achievement and motivation more positively than others. Due to continuous poor academic achievement in History and Government in national examinations over the years, most students have developed low motivation to learn the subject. Harries (2018) stated that where students take part in the learning activities, their motivation to learn is highly improved. To increase students' achievement, the student should have high level of motivation and interest towards the lesson. Dicintio and Gee (2016) reports that when students' are given full control on their learning activities, they get more motivated and engaged. The author further argues that students felt less involved and demotivated when they are not under pressure from the teacher.

Cooperative Learning Strategy is one such strategies that can be used by History and Government teachers to improve students' academic achievement (Bredehoft, 2019). Students was be grouped into small groups of not more than five members and they are required to work on certain tasks collectively towards a common academic goal (Deutsch, 2018). The teacher was be required to facilitate students' learning and at the end of the session, the teacher evaluates what the learners have done and everyone succeeds when the group succeeds (Hancock, 2016). Cooperative learning techniques can be utilized to simplify the subject content and promote deeper understanding. This study therefore, focused on investigating the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in co-educational secondary schools in Baringo central sub county.

A study by Hui-chuan liao (2016) on the effects of Cooperative Learning Strategy on students' motivation to learn History in China, showed that students taught History through Cooperative Learning Strategy had high motivation to learn the subject than those taught History through conventional teaching methods. This therefore implies that Cooperative Learning Strategy is effective in motivating students to study History and Government as worth implementing its use in History and Government classroom. A study by Quinn (2016) on the effects of Cooperative Learning Strategy on students' achievement in History among secondary school boys and girls in Nigeria, showed that there is no statistically significant difference in students' achievement in History between boys and girls when taught through Cooperative Learning Strategy and those taught through conventional teaching method.

Another study by Wachanga (2002) on the effects of cooperative class experiment teaching method on secondary school students' achievement and motivation in chemistry in Njoro, showed that instructions based on Cooperative Learning Strategy caused a significantly better students motivation and high achievement than the Conventional teaching methods. The study provided evidence to the effects that Cooperative Learning Strategy enhances secondary school students' achievement and motivation in Chemistry. This therefore implies that Cooperative Learning Strategy can improve students' academic achievement and motivation in other subjects like History and Government hence teachers should embrace its use to better students achievement and Motivation.

Despite its merits, the use of Cooperative Learning Strategy is quite time consuming since it entails allowing Students to construct meaning and knowledge. Besides, a teacher using Cooperative Learning Strategy is required to spend time getting to know each students strengths and limitations. There is limited documented evidence on the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in Baringo Central Sub-County. This study therefore, focused on investigating the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in co-educational secondary schools in Baringo central sub county.

### **PURPOSE OF THE STUDY**

The purpose of this study was to investigate the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in co-educational secondary schools in Baringo central sub county.

### **OBJECTIVES OF THE STUDY**

This study was guided by the following objectives:

- i. To determine whether there is any difference in students' academic achievement in History and Government between students' taught using Cooperative Learning Strategy and those taught using conventional teaching methods.
- ii. To establish whether there is any difference in students' motivation to learn History and Government between students' taught using Cooperative Learning Strategy and those taught using conventional teaching methods.

### **HYPOTHESIS OF THE STUDY**

In order to achieve the objectives of the study, the following null hypotheses were tested at a significance level of 0.05

**H<sub>01</sub>:** There is no statistically significant difference in students' academic achievement in History and Government between students taught using Cooperative Learning Strategy and those taught using conventional teaching methods.

**H<sub>02</sub>:** There is no statistically significant difference in students' motivation to learn History and Government between students taught using Cooperative Learning Strategy and those taught using conventional teaching methods.

### **LITERATURE REVIEW**

#### **Cooperative Learning Strategy**

This strategy where students are placed into groups of not more than five members and they are required to work on certain tasks collectively towards a common academic goal (Deutsch, 2018). Cooperative learning is not all about arranging students into groups but more of structuring positive interdependence. Under this strategy, students make the most of one another's ideas and skills e.g. students share information and ideas while they critique. While having the discussion, the teacher facilitates what they are doing thus making the approach learner centred. At the end of the lesson, the teacher carries out evaluation and where a group succeeds, everyone in the group is part of the success (Ross & Smyth, 2016).

Brown & Ciuffetelli Parker (2018) and Siltala (2017) assesses five key elements of Cooperative Learning Strategy as follows:

**Positive Interdependence:** Members in a group depend and complement each other thus more emphasis is on "we" instead of the "me" perspective.

**Individual Accountability:** This is where every member in the group has a role to play for the success of the whole group. This is very crucial for cooperative learning because each student is responsible for to work on their assigned area.

**Collaboration:** During cooperative learning lessons, students acquire social skills and as the interaction increases, the students develop a sense of responsibility and social solidarity.

**Monitoring:** During cooperative learning lessons, the teacher observes the groups to see if they are doing the work given and to ensure they are using the technique well.

**Processing:** At this stage, evaluation is done to assess the strengths and weakness in respective groups and come up with ways to improve in the next learning. This is a crucial stage because it helps to ascertain whether the objectives set have been achieved and come up with future plans in order to achieve better results in the future (Johnson & Johnson, 2016). Smith (2016) argues that where evaluation is done, students have shown better improvement on areas of weakness. There are many techniques of Cooperative Learning strategy that have been created over the

years. Some of the commonly used techniques include think-pair-share, three- step interview, Jigsaw, Jigsaw II, Reverse Jigsaw and Inside-Outside circle

**Think-pair-share:** This technique was developed in the year 2001 by Frank T. Lyman. Under this technique, the teacher poses a question to the students where thereafter given the opportunity to reflect them. The students have the choice to note down their thoughts on their books or just brainstorm them in their heads. The students are then allowed to pair with their peers and discuss their thoughts. Succeeding pair dialogue, the teacher then seeks the response from the whole group. This technique is advantageous because the teacher can call on anyone to give the answers as they already have an idea on the question at hand. This techniques is of great importance because students are given the time to brainstorm their answers before responding them (Karan's, 2016).

**Jigsaw:** Under this technique, students belong to two groups' i.e. home group and expert group. Students are each assigned a different topic while in the home group. The students are then allowed to move to the expert group with their assigned topic. In the new group, the students discuss their assigned topic together then return to their home group. Once back in their home group, each student is accountable for teaching his or her assigned topic to the rest of the members.

**Jigsaw ii:** This technique was created by Robert Slavin (2000). Under this technique, the same material focusing on different portion of the material is assigned to members of the same group. Each member is required to get answers to his or her question and make a summary on the findings. Once each member becomes an expert on his/her assignment portion, they meet with other experts from different teams who have studied the same selection, to discuss their findings. When they return to their Home Groups, they take turns teaching team mates about the section they have studied. The teacher then assesses the mastery of the overall topic.

**Reverse jigsaw:** This variation was created by Timothy Hedeem (2003). This technique differs from the original Jigsaw as the students in the expert groups are required to teach the whole class rather than return to their home groups to teach the content.

**Inside-outside circle:** Under this technique, students form two circles and take turns on rotation to face new partners to answer or discuss the teacher's questions. This method can be used to gather information, come up with new ideas and solve problems.

**Three –step interview:** It was developed by Kagan in the 2000. This technique is mainly composed of question and answer sessions where one student is the interviewer and another is the interviewee. However, there is a third student who is actively listening and taking notes during the interview. The teacher was pose a question and students are required to express their thoughts on what they think. This technique enhances students' critical thinking skills and arouses interest in to learn.

**Reciprocal teaching:** It was developed by Brown & Paliscar (2002). Under this technique, students are allowed to pair and are required to have a discussion about a text where partners take turns reading and asking questions concerning the text and receiving immediate feedback thus students learn from each other. This strategy enables the students to apply skills like clarification, questioning, prediction and summary.

Although there are many techniques of Cooperative Learning Strategy, think-pair-share, three-step interview, reciprocal teaching and Jigsaw ii was used in this study. These techniques of Cooperative Learning Strategy are suited to History and Government classroom in particular. Cooperative Learning Strategy was used two times per week on the topic “constitution and constitution making process” for four weeks. In the first and second week, simpler techniques of Cooperative Learning Strategy like think pair share, reciprocal teaching and three-step interview was used and eventually build up to more complex forms of cooperative learning techniques like jig saw ii in the third and fourth week. Nesbit and Rogers (2017) recommends that for effective implementation of Cooperative Learning Strategy, teachers should applying less complex techniques before proceeding to the more complex ones. The author further recommends that teachers who are implementing cooperative learning techniques with their students for the first time, should start with one cooperative learning technique before introducing others.

Anderson & Palmer (2018) argued that it will be wise to help students understand what Cooperative Learning Strategy is all about and what they think before its introduction. It is therefore very important that teachers intending to use this strategy should inform the students how the strategy works. Steinbrink & Jones (2017) notes that it is important to use small groups of not more than five members while using Cooperative Learning Strategy for if to be effective to the students. While placing students in respective groups, Students’ academic abilities should be considered. This was make it possible for students to help each other thus the success of all the group members. Teachers should also ensure that their classrooms are well structured and well planned for a successful implementation of these techniques. Above all, teachers need to have an excellent mastery of the subject content and be well updated on how to use the techniques under Cooperative Learning Strategy (Bredehoft, 2019).

### **Influence of Motivation on Learning**

Slavin (2017) defines motivation as a drive that impels a person to willingly use his energy to satisfy a need or a goal. The author further notes having positive motivation increases individual energy level and direct ones attention towards tasks that need to be done. Lowman (2018), outlines two major types of motivation: extrinsic and intrinsic motivation. Intrinsic motivation is a drive that comes from within an individual e.g. issues of curiosity, competence etc. Extrinsic comes from outside a person e.g. salary, promotion, praise, recognition etc. Slavin (2017) argues that students’ needs to be motivated before attention is paid to what the teacher is going to teach because learning outcomes depends not only on the learning environment but also the state of the learner taught on his or her motivation. If a student develops a negative attitude towards a subject of dislikes a teacher, students motivation to learn will also be affected and this may lead to poor performance in that particular subject (Goldberg, 2016). The author further asserts that teachers who discriminate and use humiliating language on their students negatively affects their motivation to learn. On the other hand, teachers who treat students equally with love and kindness with a lot of encouragement tend to positively arouse students’ motivation to learn (Weiner, 2019).

Deci and Ryan (2017) argues that the use of different teaching methods positively increases motivation to learn as students are actively involved in the learning activities thus preventing the students’ from getting bored. Bandura & Schunk (2016) argued that students’ internal motivation increases when students are given full control to learn as opposed to when the teacher has full control on what they are expected to learn. Nichols & Miller (2017) contends when students’ see a relation between what they are learning and their relevance to life, they get motivated learn and achieve their goals (Lepper, 2016). The author further reports that

where students are well enlightened on the role played by their subjects in solving day to day challenges in the society are more likely to develop more interest and attention toward that subject.

Felner (2017) observes when too many information is given to the students with a lot of seriousness, students' motivation to learn the subject is negatively affected but where students are actively involved in the learning process with lots of fun and freedom, students' motivation to learn the subject is highly improved. The author further notes that, when students are actively involved in extra-curricular activities like games with enough time to take a rest, students motivation is highly improved as they minds and mood get refreshed each time. Cauce (2017) says that when teachers sets a difficult exam and students perform poorly continuously, students' motivation to learn the subject is negatively affected. It is therefore important for teachers to set an exam that take into consideration abilities of all the students. Walberg (2016) says that students who are highly motivated show high achievement in their academic performance while low motivated students recorded very low achievement (Okelly, 2016). Unmotivated students do not put up necessary effort to learn while highly motivated students put in extra efforts and are more determined to achieve their goals (Santruck, 2017).

Motivation may manifest itself in learners' interest in classroom participation which may in turn influence achievement. Children who are interested in the lesson was attend more, misbehave less and consequently be more likely to learn something (Lepper, 2016). Support from parents, peers, and teachers goes hand in hand with students to learn (Wang, 2016). Teachers who show interest in students learning by helping with specific tasks taught in school and encouraging them to work hard contributes to positively to students motivation. Heartfelt (2016) also report that parents who are more concerned with their children by providing all that is required and attending parent meetings also influence motivation to learn. Family issues like divorce, Loss of parents, domestic violence, drug and substance abuse among others can result in poorer academic performance and low motivation are the students mind gets engaged in other issues instead of focusing on learning (Bandura, 2016). The author further asserts in an environment where students are involved in conflicts' among each other, students motivation is highly affected as they undergo psychological problems like stress, anxiety and depression among others. Gee (2016) argues that individual goal in life and presence of people to emulate influence motivation to learn. Students who want to achieve certain goals in life tend to put more efforts and time in order to achieve them.

### **Students' Achievement in History and Government in Kenya**

Achievement refers to a person's success attained through effort and skill which can be assessed by means of a testing instrument (Ames, 2016). Students' achievement in History and Government nationally has continually decreased over the years. The highest overall score was 43.72 in the year 2016 and the least score being 40.06 recorded in the year 2019 (KCSE, 2019). In Baringo Central sub-county where this study is intended to be carried out, students' performance in History and Government is also poor. The highest overall score was 38.45 in the year 2016 and the least score being 34.36 recorded in the year 2017 (KNEC, 2017). There is need to investigate the reasons behind the dismal performance in the subject and suggest means of improving the results. It is also of great concern to note that the students' enrolment in History and Government nationally and in Baringo central sub-county

There are a number of reasons that have been raised to explain the poor students' achievement in History and Government. Kizlik (2019) argued the use of teacher centred teachings methods such as lecture method where teachers regard students as having a hole in their brains that

needs to be filled with information. As a result of this, the learning process is characterized by transmission and memorization of facts given by the teacher as opposed to having a clear understanding (Johnson and Johnson, 2016). This makes the content boring, abstract and demotivating, thus affecting students' achievement in History and Government. Among other possible contributors to students poor performance may include ineffective teaching methods by History and Government teachers, poor attitude towards the subject, lack of adequate teaching, shortage of teachers and lack of teaching and learning resources (Were, 2016).

#### **i) Poor Teaching methods**

The methods of teaching History and Government in Kenya do not differ widely from the methods used in the teaching other subjects. History and Government just like other subjects, requires a teacher to prepare appropriately so as to deliver content in a way that could encourage good understanding of the content by the student's hence good performance. Kizlik (2019) argued that most Kenyan classrooms are dominated by ineffective and inappropriate teacher centred teachings methods such as lecture method where teachers regard students as having knowledge hole that needs to be filled with information. As a result of this, the learning process is characterized by transmission and memorization of facts given by the teacher hence low achievement in the subject (Johnson and Jonson, 2016). Curzon (2016) argues that teaching strategies like problem based learning, Cooperative Learning Strategy and guided instruction can influence students' achievement more positively.

#### **ii) Inadequate learning and teaching resources**

Lack of teaching and learning resources can negatively affect students' achievement in History and Government. Were (2016) postulates that learning activities in most Kenyan secondary schools centre on textbook and past examination papers as the main resource of teaching the subject. Resources like, videotapes, audio and audio-visual materials, newspapers, maps and charts are none- existent in many schools. Kiio (2016) reports that many students are not able to access enough information due to lack of enough textbook. Due to the shortage, students are forced to share textbooks thus creating unequal learning opportunities as students are required to seat close to one another in order to access information from the textbook. Muchina (2019) contends that students' access to relevant History and Government textbook positively affects performance. A high textbook to Student ratio, ensures that students are able to research on their own out of class and this encourages continuous follow up hence reinforcing learnt ideas and the end good results.

#### **iii) Low motivation to learn History and Government**

Students who are highly motivated show high academic achievement (Palmer, 2018). Slavin (2017) argues that students' needs to be motivated before attention is paid to what the teacher is going to teach because learning outcomes depends not only on the learning environment but also the state of the learner taught on his or her motivation. If a student has a negative emotion such a fear or disliking towards their teacher, that can negatively affect their attitude towards the subjects a whole (Cassidy, 2019). The author further asserts that teachers show preference towards certain students or uses derogatory and humiliating language that can lower students' motivation to learn. Teachers just like any other employee need to be motivated, in order for them to put in a lot of effort in order to achieve performance in the subjects they teach (Lynn, 2019).

#### **iv) Poor Attitude towards History and Government**

Attitude towards History and Government was be of like and dislike. How students perceive the subject greatly affects how they accept ideas in the subject. Poor attitude may lead to low

motivation and poor performance in History and Government (Adero, 2017). Magarey (2017) argues that attitude towards History and Government may be affected by parents attitudes, teachers characteristics and many other students' personal factors such as intelligence and career prospects. Teachers play a major role in making sure the student's see the subject interesting and that it is important. Kendura (2018) suggests that there is a huge relationship between the level of liking of a particular subject and the effort and time that is put in the subject. Learning difficulties can be reduced by a right attitude. Attitude, if correct, can be a motivating factor of attention and therefore makes students to remember facts easily (Adodo, 2019). Students perceptions of History may be affected negatively by the way the subject is presented and this applies to all the other subjects (Chery, 2018). Instructional methods practiced by teachers are important predictors of the students' motivation and attitude to study the subject while poor teaching methods affects the mastery of the content, motivation and attitude of the students towards the learning of the subject (Gbore, 2019).

A steady decline in academic achievement in History and Government is a deep concern to many thus the need to come up with the best strategies to address the problem (MOE, 2017). KNEC (2018) reports that, there is need for proper teaching of History and Government in secondary schools so that students' scores in examination was be high, thereby making the candidates entrance into History and Government related courses easy. Teaching methods being used needs to be improved and appropriate teaching strategies employed. Therefore, proper strategies of teaching History and Government is very necessary to enhance students' achievement and motivation towards the subject. Cooperative Learning Strategy is one of the most recommended strategies that can be used to improve student achievement in any classroom (Bredehoft, 2019). Researches have shown that cooperative learning strategies can be utilized to promote deeper understanding of the subject content. Educators can use various strategies of cooperative learning along with their instructional techniques to enhance learning in a classroom thus better results in higher student achievement (Edwards, 2016).

### Conceptual Framework

The purpose of this study was to investigate the effects of Cooperative Learning Strategy on students' academic achievement and motivation in History and Government in co-educational secondary schools in Baringo central sub county. Cooperative Learning Strategy together with conventional teaching methods were treated as the independent variables in this study. Achievement and motivation in History and Government were dependent on teaching methods that the teacher was employ, therefore the dependent variables.



**Figure 1: Conceptual framework on the effects of CLS on Students' Academic Achievement and Motivation in History and Government in co-educational secondary Schools in Baringo central sub county, Kenya**

## METHODOLOGY

### Research Design

This study employed a quasi-experimental design specifically Solomon Four Non-Equivalent control group research design. The design is appropriate because Fraekel and Wallen (2000) & Wachanga (2002) argue that once Kenyan secondary schools classes are constituted they exist as intact groups and school authorities do not normally allow them to be broken up and reconstituted for research purposes. The selected classes was be assigned to the experimental and control groups respectively (Mugenda & Mugenda, 2003). Solomon Four non-equivalent group design is illustrated on figure 2

**Table 3: Solomon Four Non-Equivalent Control Group design**

| GROUP          | Pre-test | Treatment | Post-test |
|----------------|----------|-----------|-----------|
| E <sub>1</sub> | O1       | X         | O2        |
| E <sub>2</sub> | -        | X         | O3        |
| C <sub>1</sub> | O4       | -         | O5        |
| C <sub>2</sub> | -        | -         | O6        |

Source: Fraenkel & Wallen (2000)

### KEY:

E<sub>1</sub>- Experimental group one

E<sub>2</sub>- Experimental group two

C<sub>1</sub>- Control group one

C<sub>2</sub>- Control group two

O- Indicates observations

X - Indicates treatment

Figure 2 shows four groups of participants, the Experimental group one (E<sub>1</sub>), the Experimental group two (E<sub>2</sub>), the Control group one (C<sub>1</sub>) and the Control group two (C<sub>2</sub>) which was be used. Groups E<sub>1</sub> and E<sub>2</sub> was form the experimental groups which was receive treatments (X), while C<sub>1</sub> and C<sub>2</sub> was be the control Groups without treatment. Groups E<sub>1</sub> and C<sub>1</sub> was receive pre-test (O<sub>1</sub> and O<sub>4</sub>), while O<sub>2</sub>, O<sub>3</sub>, O<sub>5</sub> and O<sub>6</sub> represents the post-test which was be administered to all groups. The dotted line implies involvement of intact groups. The experimental treatment was taught through Cooperative Learning Strategy while the control groups C<sub>1</sub> and C<sub>2</sub> was be taught through the conventional methods.

### Sampling Procedures and Sample Size

This study involved co-educational public secondary schools because they are the majority in Baringo Central Sub-County and their performance has been low. The unit of sampling was secondary school rather than the individual students because secondary schools exist as intact groups (Borg & Gall, 2017). This therefore means that, each school was be considered as one group. The list of co-educational sub county public secondary schools in Baringo Central Sub-County formed the sample frame. Purposive sampling technique was used to select four co-educational Sub-County public secondary schools from a frame of seventeen co-educational Sub-County public secondary schools in Baringo Central sub-county. The four schools were then be randomly assigned to treatment and control groups. Purposive sampling allows a

researcher to use groups that have the required information with respect to the objectives of his or her study (Mugenda & Mugenda, 2003). The researcher made a visit to the schools to ascertain their suitability for the research. Schools with the same characteristics in terms of resources and entry behaviour was be selected. Teachers with three years' experience and above was be considered for this study. Simple random sampling technique was be employed in selecting the participating schools in cases where the sampled schools had more than one stream (Mugenda & Mugenda, 2003). Simple random sampling technique gave the researcher the four schools that was needed in the study.

**Table 4: Distribution of Students Sample by Teaching Method**

| <b>Group</b> |      | <b>N</b>   | <b>%</b>   |
|--------------|------|------------|------------|
| Control      | (C1) | N= 45      | 45         |
| Experimental | (E1) | N= 38      | 38         |
| Control      | (C2) | N= 35      | 35         |
| Experimental | (E2) | N= 40      | 40         |
| <b>Total</b> |      | <b>158</b> | <b>158</b> |

**Source: (MOE, 2020)**

Table 4 shows a total of 158 Form Two students from the four co-educational sub-county public secondary schools participated in the study. According to the Ministry of Education regulations, the average number of students in Kenyan secondary school classes is 45.

### **Instrumentation**

Data for this study was collected using History and Government Student Achievement test (HGSAT) and History and Government Motivation Questionnaire (HGMQ)

#### **History and Government Student Achievement test (HGSAT)**

History and Government Achievement Tests (HGSAT) on “constitution and constitution making process” was used to collect data on students' academic achievement. The Test was constructed by the researcher based on the Kenya Certificate of Secondary Education (KCSE) History and Government examination questions of the previous years on “constitution and constitution making process” and moderated by two History and Government teachers who are History and Government National Examination Markers. It comprised of short answers questions based on Form Two topic on “constitution and constitution making process”. They were structured in a way so as to start with those of low order thinking and progress to more complex ones. These items tested knowledge, retention and application of learned material. The items were be scored differently with the lowest score being zero mark and the highest one mark. The test carried a total of twenty three (23) marks and the same test was used for pre-test and posts test for easy comparison. It was first be administered as a pre-test to one experimental group and one control group. It was used to assess student's prior knowledge. The items on History and Government achievement test was rearranged and then be administered as a post-test to all groups after the treatment.

#### **History and Government Motivation Questionnaire (HGMQ)**

History and Government Motivation Questionnaire (HGMQ) schedule adapted from Wachanga (2005) was used to capture data on students' motivation in History and Government topic on “constitution and constitution making process”. The questionnaire had sixteen (16) items that were on a five point liker scale ranging from Strongly Agree to Strongly Disagree with a scale of one to five respectively. Items was scored (5) for highest score while (1) was assigned for

the lowest score. Questionnaire provides a fast way of obtaining data as compared to other instrument.

### Reliability of the Research Instruments

Reliability refers to a measure of degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003). All instruments was pilot-tested in secondary schools within Baringo central sub-county but in a division that was not included in the study but having similar characteristics as the sample schools. Reliability of HGSAT was estimated using Kuder-Richardson formulae (KR-21), since it is suitable for items that are scored as either right or wrong with a score of 0 or 1 mark and not more than 1 mark (Fraenkel & Wallen, 2000). This method was appropriate because data is continuous and the instruments is administered only once and are of same difficult index. The reliability of HGMQ was estimated using Cronbach's alpha ( $\alpha$ ). This is because the items were of closed ended likert type and also the instrument was administered once. A reliability coefficient alpha of 0.7 or higher was accepted as recommended by Frankel and Wallen (2000).

### Data Analysis

Data was analysed using t- test, ANOVA and ANCOVA with the aid of Statistical Package for Social Scientists (SPSS). Both descriptive and inferential statistics was used to analyse the data. t-test was used when dealing with two means because of its superior power to detect differences between two means (Borg & Gall, 2000). ANOVA was used to analyse differences in the four means of post-test scores. ANCOVA was used to establish whether there is initial difference in the experimental and control groups. ANCOVA reduces experimental error by statistical rather than experimental procedure (Gall & Borg 2000). Hypothesis was tested at  $\alpha=0.05$  level of significance.

## RESULTS AND DISCUSSION

### Effects of Cooperative Learning Strategy on students' academic achievement in History and Government.

The first objective of this study sought to determine the effects of Cooperative Learning Strategy on students' academic achievement in History and Government. This was determined in two phases namely; gain analysis and post-test analysis where gain analysis checked the gain difference between the pre-test and post-test mean of groups  $C_1$  and  $E_1$  while post-test analysis compared the means of groups  $C_1$ ,  $C_2$ ,  $E_1$  and  $E_2$ . The pre-test and post-test mean scores on HGSAT for  $E_1$  and  $C_1$  were analysed to establish the mean gain between the two groups and results shown on the table 4

**TABLE 4: HGSAT pre-test mean score and gain of  $E_1$  and  $C_1$**

| Scale     |      | $E_1$ | $C_1$ |
|-----------|------|-------|-------|
| Pre-test  | N    | 38    | 45    |
|           | Mean | 2.52  | 2.63  |
|           | SD   | .331  | .339  |
| Post-test | N    | 38    | 45    |
|           | Mean | 3.94  | 3.59  |
|           | SD   | .413  | .354  |
| Mean gain |      | 1.42  | .96   |

Results on table 4 shows that the mean gain of  $E_1$  ( $M=1.42$ ) was higher than that of  $C_1$  ( $M=.96$ ) which implies higher achievement in  $E_1$  group. This can be attributed to the learning

Strategy. However, the results on table 9 do not reveal whether the difference in mean gain is statistically significant from that of  $C_1$ . It was therefore necessary to perform a t-test to ascertain this and the results were as shown on table 5.

**TABLE 5: Comparison of HGSAT means gain between  $E_1$  and  $C_1$**

| Group | N  | Mean gain | df | t- value | p-value |
|-------|----|-----------|----|----------|---------|
| $E_1$ | 38 | 1.42      | 77 | 3.99     | 0.000*  |
| $C_1$ | 45 | .96       |    |          |         |

Table 5 shows that the mean gain of  $E_1$  ( $M=1.42$ ) was statistically different from that of  $C_1$  ( $M=.96$ ,  $t(77)=3.99$ ,  $P=0.000$  ( $P<0.05$ )). This implies that the treatment enhanced students' in History and Government. HGSAT Post-test analysis compared the means of the four groups and results shown on table 6

**TABLE 6: HGSAT post-test means of the four groups.**

| Group | N  | Mean gain | SD   |
|-------|----|-----------|------|
| $E_1$ | 38 | 3.94      | .413 |
| $C_1$ | 45 | 3.59      | .354 |
| $E_2$ | 40 | 4.06      | .372 |
| $C_2$ | 35 | 3.50      | .422 |

From table 6, the experimental groups  $E_1$  and  $E_2$  were found to have a HGSAT post-test score of ( $E_1$  ( $M=3.94$ ,  $SD=.413$  and  $E_2$  ( $M=4.06$ ,  $SD=.372$ ). The control groups  $C_1$  and  $C_2$  were found to have a HGSAT post-test score of  $C_1$  ( $M=3.59$ ,  $SD=.354$  and  $C_2$  ( $M= 3.50$ ,  $SD=.422$ ). This shows that the experimental groups had higher mean scores indicating that they had outperformed the control groups. Since the experimental groups were taught using the Cooperative Learning Strategy, it can therefore be deduced from the results that the administration of the treatment had a positive effect on the students' achievement in History and Government. This shows that Cooperative Learning Strategy produced better results than conventional learning methods in the teaching of History and government. However, the decision to retain or reject the null hypothesis could not be made based on these results since the results do not reveal whether the difference in achievement between the experimental and the control groups is statistically significant different. To test this, ANOVA was performed and the results were as shown on Table 7.

**TABLE 7: ANOVA of the post – test mean score on HGSAT.**

| Scale          | Sum of Squares | df  | Mean Square | F-ratio | p-value |
|----------------|----------------|-----|-------------|---------|---------|
| Between groups | 8.509          | 3   | 2.836       | 18.271  | 0.000*  |
| Within groups  | 23.907         | 154 | .155        |         |         |
| Total          | 32.416         | 157 |             |         |         |

The difference is Significant at  $\alpha= 0.05$  significance level, ( $P<0.05$ )

From Table 7, the difference in post-test HGSAT mean scores among the four groups was found to be statistically significant  $F(3, 154) = 18.271$ ,  $P\text{-value}=0.000$ . The results of ANOVA test therefore indicate that there was a statistically significant difference in achievement in History and Government among the four groups. The results on Table 7 however do not show

where the differences lie. To establish the specific group where this significant difference occurred, the Scheffe Post Hoc multiple comparison was performed and result were shown on table 8

**TABLE 8: Multiple comparison of HGSAT post-test mean by learning Strategy.**

| Scale                            | Mean difference | p-value |
|----------------------------------|-----------------|---------|
| E <sub>1</sub> Vs C <sub>1</sub> | .348            | 0.01*   |
| E <sub>1</sub> Vs E <sub>2</sub> | -.121           | .990    |
| E <sub>1</sub> Vs C <sub>2</sub> | .439            | .000*   |
| C <sub>1</sub> Vs E <sub>2</sub> | -.469 *         | .000*   |
| C <sub>1</sub> Vs C <sub>2</sub> | .091            | 1.000   |
| E <sub>2</sub> Vs C <sub>2</sub> | .560 *          | .000*   |

\*The difference is Significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

Table 8 shows a statistically significant difference in the post-test means scores on HGSAT between the experimental and the control groups at significance level of alpha value 0.05. When experimental group (E<sub>1</sub>), was compared to group control group (C<sub>1</sub>), experimental groups (E<sub>1</sub>) and control group (C<sub>2</sub>), experimental group (E<sub>2</sub>) and control group C<sub>1</sub> and (experimental group (E<sub>2</sub>) and control group (C<sub>2</sub>), the difference was found to be significant. The table indicates statistically significant difference between the experimental and the control groups. This shows that the Cooperative Learning Strategy enhanced students' achievement in History and Government more than the conventional teaching methods.

Ideally all the groups that participated in the study C<sub>1</sub>, C<sub>2</sub>, E<sub>1</sub> and E<sub>2</sub> should be similar at the point of entry. However, the research design used in this study only allows pre-testing of E<sub>1</sub> and C<sub>1</sub>. In the previous post-test analysis ANOVA was used. However, ANOVA does not have feature that control entry behaviour difference. This therefore necessitated the use of a tool that could deal with only differences (Mugenda & Mugenda, 1999). ANCOVA was therefore employed. ANCOVA uses the KCPE covariate to take care of any initial differences. ANCOVA adjusts the means and then conducts the comparison. KCPE scores correlate closely with the scores used in this study. ANCOVA was therefore performed using the students' KCPE scores as the covariate and results shown on Table 9

**TABLE 9: HGSAT adjusted post-test means of four groups**

| Group          | N  | Mean gain         |
|----------------|----|-------------------|
| E <sub>1</sub> | 38 | 3.94 <sup>a</sup> |
| C <sub>1</sub> | 45 | 3.60 <sup>a</sup> |
| E <sub>2</sub> | 40 | 4.06 <sup>a</sup> |
| C <sub>2</sub> | 35 | 3.50 <sup>a</sup> |

Table 9 shows the HGSAT adjusted mean score of the four groups with KCPE as the covariate. The table shows that the means of the experimental groups E<sub>1</sub> and E<sub>2</sub> were higher than those of the control groups C<sub>1</sub> and C<sub>2</sub>. The table does not however reveal whether the differences in the means of experimental groups and the control groups are significant or not. To test whether the difference among the means were statistically significant. ANCOVA was performed and results were as shown on Table 10

**TABLE 10: Test of difference of HGSAT post-test using ANCOVA.**

| Scale         | Sum of Squares | df  | Mean Square | F- ratio | p-value |
|---------------|----------------|-----|-------------|----------|---------|
| Contrast      | 8.400          | 3   | 2.800       | 17.979   | 0.000*  |
| Error (Total) | 23.828         | 153 | .56         |          |         |

0.000\* significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

Table 10 reveals that there is a statistically significant difference in the HGSAT post-test mean scores of the four groups  $F(3,153) = 17.979$ ,  $P = 0.000$ . This confirms that the differences between the post-test means are statistically significant different at  $0.05\alpha$  level in favour of the experimental group and therefore the difference can only be attributed to the treatment. The results on table 10 does not however reveal where the difference is. To show where the differences lie, multiple comparison test was performed and results of the Scheffe test were as shown on Table 11

**TABLE 11: HGSAT post-test multiple comparison using ANCOVA**

| Scale          | Mean difference | p-value |
|----------------|-----------------|---------|
| $E_1$ Vs $C_1$ | .344            | .000*   |
| $E_1$ Vs $E_2$ | -.121           | .165    |
| $E_1$ Vs $C_2$ | .437            | .000*   |
| $C_1$ Vs $E_2$ | -.466           | .000*   |
| $C_1$ Vs $C_2$ | .093            | .311    |
| $E_2$ Vs $C_2$ | .558            | .000*   |

Not significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

The results on Table 11 shows that the pairs of HGSAT mean of groups  $E_1$  and  $C_1$ , groups  $E_1$  and  $C_2$ , groups  $C_1$  and  $E_2$  and  $E_2$  and  $C_2$  were statistically significantly different at the  $0.05\alpha$  Level. This therefore may imply that where Cooperative Learning Strategy was used, the students achieved higher scores in History and Government as compared where conventional teaching methods were used.

Table 16 shows that the difference were significant in favour of the experimental groups. It is therefore evident that the experimental groups outperformed their control counterparts. Since the ANOVA and ANCOVA test were statistically significant, the first null hypothesis ( $H_{01}$ ) which stated that there is no statistically significant difference in students' achievement in History and Government between students taught using Cooperative Learning Strategy and those taught using conventional teaching methods is therefore rejected. The findings of this study indicate that students taught through Cooperative Learning Strategy had higher students' achievement scores than those taught through conventional teaching methods. This implies that the use of Cooperative Learning Strategy enhanced students' achievement in History and Government.

The findings of this study agree with those of Quinn (2016) who found out that the use of Cooperative Learning Strategy resulted in better achievement than the use of conventional teaching methods as students taught through Cooperative Learning Strategy got more engaged and showed more ownership over learning. The author further found out that students who learned through Cooperative Learning Strategy showed better retention of knowledge than students who taught through conventional methods. The results of this study concur with these

findings. The findings of this study however contradict those of Moreno (2004) who observed that Cooperative Learning Strategy does not lead to better academic achievement. Moreno (2004) argued some students rejected the use of Cooperative Learning Strategy with the belief that they are being held back by their slower teammates who are less confident.

### Effects of Cooperative Learning Strategy on students' motivation to learn History and Government

The second objective of this study sought to determine the effects of Cooperative Learning Strategy on students' motivation to learn History and Government. This was determined in two phases namely; gain analysis and post-test analysis where gain analysis checked the gain difference between the pre-test and post-test mean of groups  $C_1$  and  $E_1$  while post-test analysis compared the means of groups  $C_1$ ,  $C_2$ ,  $E_1$  and  $E_2$ . The pre-test and post-test mean scores on HGMQ for  $E_1$  and  $C_1$  were analysed to establish the mean gain between the two groups and results shown on table 12

**TABLE 12: HGMQ pre-test, post-test means score and gain of  $E_1$  and  $C_1$**

| Scale     |      | $E_1$ | $C_1$ |
|-----------|------|-------|-------|
| Pre-test  | N    | 38    | 45    |
|           | Mean | 51.27 | 53.57 |
|           | SD   | 8.65  | 9.64  |
| Post-test | N    | 38    | 45    |
|           | Mean | 60.05 | 54.83 |
|           | SD   | 5.39  | 8.74  |
| Mean gain |      | 8.65  | 1.26  |

The results on the table 12 shows that the mean gain of  $E_1$  ( $M=8.65$ ,  $SD=5.39$ ) was higher than that of  $C_1$  ( $M=1.26$ ,  $SD=8.74$ ). This implies that there was more learning and more motivation in  $E_1$  group. This can be attributed to the learning Strategy employed in teaching of this groups. However, the results on Table 12 do not reveal whether the difference in mean gain is statistically significant. It was therefore necessary to perform a t- test to ascertain this. The results of the t-test were as shown on table 13

**TABLE 13: Comparison of HGMQ mean gain between  $E_1$  and  $C_1$**

| Group | N  | Mean gain | d f | t- value | p-value |
|-------|----|-----------|-----|----------|---------|
| $E_1$ | 38 | 8.61      | 77  | 2.788    | 0.007*  |
| $C_1$ | 45 | 1.26      |     |          |         |

Significant at  $\alpha=0.05$  significance level, ( $P<0.05$ )

Table 13 shows that the mean gain of  $E_1$  ( $M=8.61$ ) was statistically different from that of  $C_1$  ( $M=1.26$ ,  $t(77)=2.788$ ,  $P=0.007$  ( $P<0.05$ )). This implies that the treatment enhanced learning thus leading to higher motivation. HGMQ Post-test analysis compared the means of the four groups and results shown on table 14

**TABLE 14: HGMQ post-test means of the four groups**

| Group          | N  | Mean gain | SD   |
|----------------|----|-----------|------|
| E <sub>1</sub> | 38 | 60.05     | 5.39 |
| C <sub>1</sub> | 45 | 54.83     | 8.74 |
| E <sub>2</sub> | 40 | 59.11     | 4.00 |
| C <sub>2</sub> | 35 | 55.25     | 5.68 |

From table 14, the experimental groups E<sub>1</sub> and E<sub>2</sub> were found to have a HGMQ post-test score of (E<sub>1</sub> (M=60.05, SD=5.39 and E<sub>2</sub> (M=59.11, SD=4.00. The control groups C<sub>1</sub> and C<sub>2</sub> were found to have a HGMQ post-test score of C<sub>1</sub> (M=54.83, SD=8.74 and C<sub>2</sub> (M= 55.25, SD=5.68). This shows that the experimental groups had higher mean scores indicating that they had outperformed the control groups. Since the experimental groups were taught using the Cooperative Learning Strategy, it can therefore be deduced from the results that the administration of the treatment had a positive effect on the students' motivation to learn History and Government. This shows that Cooperative Learning Strategy produced better results than conventional learning methods in the teaching of History and government. To find out whether there was any significant difference in the means among the groups, ANOVA test was carried and the results are shown on table 15

**TABLE 15: One way Analysis of variance (ANOVA) of the post-test mean scores on HGMQ**

| Scale          | Sum of Squares | df  | Mean Square | F-ratio | p-value |
|----------------|----------------|-----|-------------|---------|---------|
| Between groups | 834.588        | 3   | 278.196     | 7.473   | 0.000*  |
| Within groups  | 5695.959       | 153 | 37.228      |         |         |
| Total          | 6530.548       | 156 |             |         |         |

Significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

From Table 15, the difference in post-test HGMQ mean scores among the four groups was found to be statistically significant  $F(3, 153) = 7.473$ ,  $P\text{-value} = 0.000$ . The results of ANOVA test therefore indicate that there was a statistically significant difference in motivation among the four groups. The results on Table 15 however do not show where the differences lay. To establish the specific group where this significant difference occurred, the Scheffe Post Hoc multiple comparison was performed and result were shown on Table 16

**TABLE 16: Multiple comparison of HGMQ post-test means by learning strategy**

| Groups                           | Mean difference | P-Value |
|----------------------------------|-----------------|---------|
| E <sub>1</sub> vs C <sub>1</sub> | 5.22            | 0.001*  |
| E <sub>1</sub> vs E <sub>2</sub> | 0.94            | 1.000   |
| E <sub>1</sub> vs C <sub>2</sub> | 4.80            | 0.003*  |
| C <sub>1</sub> vs E <sub>2</sub> | -4.28           | 0.019*  |
| C <sub>1</sub> vs C <sub>2</sub> | -0.42           | 1.000   |
| E <sub>2</sub> vs C <sub>2</sub> | 3.86            | 0.036   |

\* Significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

Table 16 shows a statistically significant difference in the post-test means scores on HGMQ between the experimental and the control groups at significance level of alpha value 0.05. When experimental group (E<sub>1</sub>), was compared to group control group (C<sub>1</sub>), experimental groups (E<sub>1</sub>) and control group (C<sub>2</sub>), experimental group (E<sub>2</sub>) and control group C<sub>1</sub> and

(experimental group ( $E_2$ ) and control group ( $C_2$ ), the difference was found to be significant. The table indicates statistically significant difference between the experimental and the control groups. This shows that the Cooperative Learning Strategy enhanced students' motivation in History and Government more than the conventional teaching methods.

Ideally all the groups that participated in the study  $C_1$ ,  $C_2$ ,  $E_1$  and  $E_2$  should be similar at the point of entry. However, the research design used in this study only allows pre-testing of  $E_1$  and  $C_1$ . In the previous post-test analysis ANOVA was used. However, ANOVA does not have feature that control entry behaviour difference. This therefore necessitated the use of a tool that could deal with only differences (Mugenda & Mugenda, 1999). ANCOVA was therefore employed. ANCOVA uses the KCPE covariate to take care of any initial differences. ANCOVA adjusts the means and then conducts the comparison. KCPE scores correlate closely with the scores used in this study. ANCOVA was therefore performed using the students' KCPE scores as the covariate and results shown on Table 17

**TABLE 17: Adjusted means score of the four groups**

| Group | N  | Mean  |
|-------|----|-------|
| $E_1$ | 38 | 60.04 |
| $C_1$ | 45 | 54.83 |
| $E_2$ | 40 | 59.10 |
| $C_2$ | 35 | 55.25 |

Table 17 shows the adjusted mean score of the four groups with KCPE as the covariate. The table shows that the means of the experimental groups  $E_1$  and  $E_2$  were higher than those of the control groups  $C_1$  and  $C_2$ . The table does not however reveal whether the differences in the means of experimental groups and the control groups are significant or not. To test whether the difference among the means were statistically significant ANCOVA was performed and results were as shown on Table 18

**TABLE 18: Test of difference of HGMQ post-test using ANCOVA**

| Scale    | Sum of Squares | df  | Mean Square | F- ratio | p-value |
|----------|----------------|-----|-------------|----------|---------|
| Contrast | 829.986        | 3   | 276.662     | 7.383    | 0.000*  |
| Total    | 5695.698       | 152 | 37472       |          |         |

\*The difference is significant at  $\alpha = 0.05$  significance level, ( $P < 0.05$ )

Table 18 reveals that there is a statistically significant difference in the HGMQ post-test mean scores of the four groups  $F(3,152) = 7.383$ ,  $P = 0.000$ . This confirms that the differences between the post-test means are statistically significant different at  $0.05\alpha$  level in favour of the experimental group and therefore the difference can only be attributed to the treatment. The results on table 23 does not however reveal where the difference is. To show where the differences lie, multiple comparison test was performed and results of the Scheffe test were as shown on Table 19

**TABLE 19: HGMQ post-test multiple comparison using ANCOVA**

| Scale                            | Mean difference | p-value |
|----------------------------------|-----------------|---------|
| E <sub>1</sub> Vs C <sub>1</sub> | 5.21            | 0.000*  |
| E <sub>1</sub> Vs E <sub>2</sub> | 0.94            | 0.489   |
| E <sub>1</sub> Vs C <sub>2</sub> | 4.79            | 0.000*  |
| C <sub>1</sub> Vs E <sub>2</sub> | -4.27           | 0.003*  |
| C <sub>1</sub> Vs C <sub>2</sub> | -0.42           | 0.768   |
| E <sub>2</sub> Vs C <sub>2</sub> | 3.85            | 0.006*  |

Table 19 shows that the difference were significant in favour of the experimental groups. It is therefore evident that the experimental groups outperformed their control counterparts. Since the ANOVA and ANCOVA test were statistically significant, the second null hypothesis ( $H_{02}$ ) which stated that there is no statistically significant difference in students' motivation to learn History and Government between students taught using Cooperative Learning Strategy and those taught using conventional teaching methods is therefore rejected. The findings of this study indicate that students taught through CLS achieved statistically significant higher scores in the HGMQ compared to those who were taught through conventional teaching methods. This implies that the use of Cooperative Learning Strategy enhanced students' motivation to learn History and Government.

The findings of this study agree with those of Slavin (2017) who found out that Cooperative Learning Strategy not only fostered critical thinking but also motivated the students to learn. The author further observed that motivated students were usually more absorbed in learning and achieved high scores. The findings of this study showed that where Cooperative Learning Strategy was used, learners were more motivated to learn History and Government and Government. The findings of this study however contradict those of Lepper (2015) who observed that Cooperative Learning Strategy negatively affects students' motivation as it is time consuming and if not properly facilitated, cases of noise making and dominance by some students may be rampant.

## DISCUSSIONS

This study investigated the effects of Cooperative Learning Strategy on students' academic achievement in History and Government. The results of the study showed that students taught History and Government through Cooperative Learning Strategy out-performed students taught the same concept through conventional teaching methods. The study also sought to determine the effects of Cooperative Learning Strategy on students' motivation to learn History and Government. The results of the study showed that Cooperative Learning Strategy enhanced students' motivation to learn History and Government.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

Based on the findings of this study, the following conclusion have been reached

The use of Cooperative Learning Strategy enhances students' academic achievement in History and Government more compared to conventional teaching methods since students taught through Cooperative Learning Strategy had higher HGSAT scores than those taught through conventional teaching methods. The use of Cooperative Learning Strategy enhances students' motivation to learn History and Government as compared to conventional teaching methods since students taught through Cooperative Learning Strategy had higher scores on

HGMQ than those taught through conventional teaching methods. This therefore implies that Cooperative Learning Strategy is effective in motivating learners to study History and Government.

### Recommendations

Based on the findings of this study, the researcher makes the following recommendations; Teachers service commission to do in-service training of secondary school History and Government teachers on the use of Cooperative Learning Strategy. Teacher trainers to blend the use of Cooperative Learning Strategy together with conventional teaching methods in the teaching of History and Government lessons.

### Suggestions for future research

The researcher therefore makes the following recommendations for future research; A study on the effects of Cooperative Learning Strategy on students' academic self-concept in History and Government. A study to determine the influence of Cooperative Learning Strategy on secondary school students' selection of History and Government as an elective subject at from two level. A study on the effects of cooperative learning strategy on students' attitude towards History and Government.

### REFERENCES

- Armstrong, E. (2016). *Gender and social exchange: A developmental perspective*. An Francisco: Jossey-Bass
- Ayoo S.J (2018). Factors affecting students' academic performance in KCSE examination in Kenya. University of Nairobi, Nairobi Kenya.
- Ayot, H.O. (2016). *New Strategy in History Teaching in Schools*. Nairobi: Kenya Literature Bureau.
- Blithe, Clark, Forbes, E, & Robinson, M. (2016). Effects of gender diversity on performance and interpersonal behaviour in small work groups. *Sex Roles*, 52(9/10), 645–657.
- Borg, W. K., & Gall, M. D. (2018). *Education research: An introduction* (4<sup>th</sup> ed.). New York, NY: Longman Inc.
- Brandy, S. & Eister, K. (2019). "Troubles talk": Effects of gender and gender-typing. *Sex Roles*, 48(3/4), 183–188.
- Bredehoft, D. J. (2019). Cooperative controversies in the classroom. *College Teaching*, 39(3), 122-126.
- Chabala, H.H.A. (2017). *"Effective Teaching of History"*. Conference Paper. Nairobi.
- Coltham, J.D. (2017). *Educational Objectives for the Study of History*. Manchester: The Historical Association.
- Curzon, L. (2016). Quasi-experimentation. Design and analysis issues for field settings. New York, NY: Rand M.C. Nally Press.
- Davies, J., & Tannen (2016). Expressions of gender: An analysis of pupils' gendered discourse styles in small group classroom discussions. *Discourse and Society*, 14(2), 115–132.
- Dicintio, M.J., & Gee, S. (2016). Control is the key: Unlocking the motivation of at risk students. *Psychology in the Schools*, 36(3), 231-237.
- Edwards, C., & Stout, J. (2016). Cooperative learning: The first year. *Educational Leadership*, 47(4), 38-41.
- Fraekel, M. & Wallen, O. (2000). *Instructional methods of teaching*. London, UK: McMillan Publishers.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2018). *Educational research: An introduction*. White Plains, NY: Longman Publishing.

- Gipps, N. (2018). The development of African secondary education in the Republic of Kenya (1924-1962). (Unpublished doctoral dissertation). The Catholic University of America.
- Githara, H. (2019). The development of African secondary education in the Republic of Kenya (1924-1962). (Unpublished doctoral dissertation). The Catholic University of America.
- Hancock, D. (2016). Cooperative learning and peer orientation effects on motivation and achievement. *Journal of Educational Research*, 97(3), 159-166.
- Harries, E. R. (2017). Intrinsic motivation and self –determination in human behaviour. New York, NY: Plenum press.
- Johnson, (2016). "Cooperative, competitive, and individualistic learning". *Journal of Research and Development in Education*. 12: 3–15.
- Kenya Institute of Curriculum Development (KICD), (2017). *Secondary History and Government syllabus*. Kenya Institute of Curriculum Development, Nairobi, Kenya.
- Kizlik, R. (2019) *instructional methods information*. London: mc Millan publishers
- Lepper, M.R. (2016). Motivational considerations in the study of instruction. *Cognition and instruction*, 5(4), 29-33.
- Ministry of Education (MOE), (2018). Policy Framework for Education. *Training and Research*, (2), 5-16.
- Mugenda Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative strategies*. Nairobi, KE: Nairobi ACTS Press
- Mwenesongole, M. (2019). *Research methods in psychology (2<sup>nd</sup> Ed.)*. White plains, NY: Longman.
- Nasibi, M. W., & Kiio, M. (2016). *History & Government handbook for teachers*. Nehema, Nairobi, Kenya.
- Osokoya, M. M. (2019). Patterns of career aspiration between senior secondary school History students. *International Journal*, 78(2).
- Quinn .P. (2016) .Effects of Cooperative Learning Strategy on Students’ achievement and motivation by gender towards the learning of History. Nigeria
- Slavin, R.E. (2017). Cooperative learning and student achievement. *Educational Leadership*, 45(2), 31-33.
- Steel, H. C. (ed.) (2018). *Handbook for history teachers*. London, England: Methuen Educ. Ltd.
- Tyson, D. (2017). An educator’s primer on the gender war. *Phi Delta Kappan*, 84(3), 235–240.
- Wachanga, S. W. (2002). Effects of cooperative class experiment teaching method on secondary school students motivation and achievement in chemistry (Unpublished Ph. D Thesis). Egerton University. Njoro, Kenya.
- Wachanga, S.W. (2005). Chemistry education: an introduction to Chemistry teaching methods. Njoro. KE: Egerton University Press.
- Wang, M., Haertel, G., & Walberg, H. (2016). Toward a knowledge base for school learning. *Review of Educational Research*, 63(3), 249-294. 44
- Were, N. (2018). An examination of the problems relating to the teaching of History (Unpublished diploma Project). *Kenyatta University, Nairobi, Kenya*.