

**EFFECTIVENESS OF VISUAL LEARNING AIDS IN ENHANCING  
READING AND WRITING SKILLS AMONG SECONDARY SCHOOL  
STUDENTS IN UASIN GISHU COUNTY, KENYA**

**BY**

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## DECLARATION

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## **DEDICATION**

This thesis is dedicated to my family

## **ACKNOWLEDGEMENT**

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## ABSTRACT

Visual learning aids are important in an education system. Visual learning aids are those devices which are used in classrooms to encourage the teaching and learning process and make it interesting. Reading and writing skills are basically considered as advanced skills in the learning process, usually acquired after listening and speaking skills are acquired. Form one students come in to secondary school with varied abilities from varied learning backgrounds and thus the need for them to enhance reading and writing as essential skills in secondary school. The purpose of this study was to analyze the effectiveness of Visual Learning Aids on reading and writing among form one students in rural secondary schools in Uasin Gishu County, Kenya. The objectives that guided this study were: to determine the availability of visual learning aids in Cheplelaibei Secondary school in soy sub county, Uasin Gishu County, to assess the usage of Visual Learning Aids in teaching of reading and writing skills, to determine the challenges encountered by teachers and learners in using Visual Learning Aids resources in secondary schools and to analyze the effectiveness of Visual Learning Aids on the reading and writing skills among form one students in secondary schools in Uasin Gishu county, Kenya. The variables of the study included; visual leaning aids as the independent variable and reading and writing language skills as dependent variables. The study adopted the dual coding theory which states that recall/ recognition is enhanced by presenting information in both visual and verbal form. The study used the quasi experimental research which is the Pre-Test, Post-Test Control Group. The target population comprised learners and teachers of English language in Cheplelaibei North secondary school in Uasin Gishu County. The school was chosen because of its rich cosmopolitan population and the different backgrounds of students, which provided the study with a target population that is representative of other schools in Kenya. The instruments of data collection were interview schedules, document analysis and observation schedules. A census technique was used. The findings from this study established that while certain visual learning aids like pictorials, charts, and posters were readily available and considered adequate in teaching English Language, shortages in other crucial resources such as real objects, textbooks, and flashcards were observed. The study also noted that despite the frequent utilization of traditional aids, such as pictorials, charts, textbooks, and posters, the less frequent use of real objects and flashcards highlighted potential limitations in diversifying teaching strategies. However, teachers and learners were found to encounter several challenges in utilizing visual learning aids, including issues related to availability, technological constraints, and catering to diverse learning styles. The study concluded that a balanced provision of visual learning aids is crucial to create a more comprehensive and effective language learning environment. Furthermore, the research findings confirmed the positive impact of using visual aids on students' reading and writing skills, highlighting the potential benefits even with a short duration of exposure. The study recommended continuous training for teachers to effectively integrate these aids into their teaching practices. Moreover, educators should adopt a balanced approach, combining various visual aids and other instructional methods to enhance both visual literacy and traditional reading and writing skills among students.

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**ABBREVIATIONS**

ANOVA -	Analysis of Variance
CB/WB -	Chalk board/White board
EFL -	English as a Foreign Language
OHP -	Over-head projector
PPT -	Power point
SPSS -	Statistical Package for Social Science
VA -	Visual Aids

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction to the Study**

Visual Learning Aids are important in education system. Visual aids are those devices which are used in classrooms to encourage teaching learning process and make it easier and interesting. Visual aids are useful for the dissemination of knowledge and for making teaching effective. The purpose of this study is to analyze the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya. This chapter presents the background of the problem, the statement of the problem, the purpose of the study, research objectives and questions that will guide the study. Additionally, the significance, scope, limitations and justification of the study are highlighted. The chapter provides the conceptual framework on which the study was based.

#### **1.1 Background of the Study**

Education is an aspect of socio-economic growth enhancement as advocated by several government policy papers and numerous scholars (ROK, 2007; World Bank, 2005; Selina 2012). Todaro (2004) alludes to the fact that a country that is unable to invest in education in order to improve awareness and skills of its people and use them efficiently in the national economy cannot improve much. Visual Learning Aids that involve the use of photographs, drawings or interactive video; are typically intended to promote learning and have a positive impact on learning for the students. The usefulness of the visual knowledge is concerned with cognitive learning and retention from the learning and instructional perspective. In addition, the performance requirements of the learning materials are important and aimed at clarification and a reminder.

Watson et al. (2010) suggest that if the learning aids are applied to a procedural motor activity, the academic success criterion is based on the result of the actual movement rather than the retention. Thus, teachers will think in terms of how they can facilitate learning while planning and using Visual Learning Aids. Referring to them as learning aids is therefore important, rather than teaching aids.

The high correlation between sustainable development goals (SDG) 4 – which ensures inclusive and equitable quality education and encourages lifelong learning opportunities for all and Visual Learning Aids suggests that the overall education level of a nation is closely linked to visual learning education and training. Only when the need for the skills needed is met can we encourage equal development of the whole society.

The use of visual aids in different learning areas allows students to engage and this helps to create trust and benefit in the learning process (Punzalan, 2018). Yunus et al., (2018) contended that the use of visual aids made it possible for teachers to engage their students closely with literary texts while being able to encourage students with specific types of text. In advanced nations groups that used the visual arts to study appreciation of art recorded significant performance gains compared to those that used the traditional method of lecture-discussion (Punzalan, 2018). In addition, further data analysis indicates that the use of visual arts in different learning areas encourages students to participate, and this will boost their confidence and advantages in the learning process (Punzalan, 2018). Kurgat and Omuna (2016) have done work on the availability and use of visual materials in schools to facilitate the enhancement of writing skills for pupils.

The study therefore seeks to examine the effectiveness of Visual Learning Aids on enhancing reading and writing among form one students in rural secondary schools in Kenya.

## **1.2 Statement of the Problem**

English is at the heart of learning, all other learning depends upon the mastery of the fundamental skills of the English language, which are vital not only for educational purposes but also for our economic growth and competitiveness (Kogan, 1976).

The Constitution of Kenya 2010, accords English the status of one of the official languages while according to the language policy of 1976, it is the language of instruction from Grade four onwards, including colleges and universities. In addition, English is a language of communication at local, regional and international levels. Those who master English reap many academic, social and professional benefits. In the school setting, success in education will largely depend on an individual's proficiency in English. The English subject at lower secondary level will expose learners to both knowledge and use of English language, and literary appreciation skills through the study of literature in English. It will build on the competencies acquired at upper primary level in listening, speaking, reading, writing and grammar.

According to the basic education framework 2013, the English language advances some of its core competencies like communication and collaboration.

The English language has four main skills: Listening, speaking, reading and writing. The listening and speaking skills play an important role in the social and academic development of a person. One who listens and speaks effectively is able to receive and respond to information appropriately. These two skills contribute significantly to the development of the reading and writing skills.

By the end of lower secondary level, learners are expected to have acquired proficiency in English language so as to be able to use it in the study of other subjects and also prepare them for more advanced study of English language and literature at senior school. They are provided with varied experiences in listening, speaking, reading, writing and grammar so as to develop communicative competence. They are also expected to interact with language and literary material both in and outside the classroom.

Reading and writing skills are basically considered as advanced skills in the language learning process, usually acquired and learnt after listening and speaking are adequately acquired to take up the role enhancing the development of reading and writing. Basing on this, the language curriculum sets out the teaching of reading and writing as mandatory, (Basic Education Framework, 2017).

As it is known that visual aids are one of the important teaching facilities and are essential during teaching, they facilitate study and the teaching of reading and writing skills easily. Visual aids may provide the chance to learn visually and are more effective and easier for learners. During teaching with models and visual aids, students put in effort to identify it, or recognize its functions and try to have its interpretation, to understand its use and then try to compare it with their pre-concepts, adapting the new sensation and pursuing to recognize about it. From one students come in with varied abilities from varied learning backgrounds and thus the need for them to enhance reading and writing as essential skills in secondary school. The age of internet confers greater interactivity, connectivity and exhibits to the creation, dissemination and use of Visual Learning Aids for learners with varied learning types. Now, people in any part of the world can create videos, animations and podcasts about any educational topics

to be shared with anyone who is connected via the World Wide Web (Daniel Tang Kuok, 2018). Thus, Visual Learning Aids will work well with visual learners either through the internet or presentations in the classroom. It is apparent that sophistication of teaching and learning aids is closely knitted with technology advancement (Ranasinghe & Leisher, 2009). Thus, this study was guided by the question: How effective are Visual Learning Aids in enhancing reading and writing skills among form one students?

### **1.3 Purpose of the Study**

The purpose of this experimental study is to analyze the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones students of Cheplelaibei North Secondary in Uasin Gishu, Kenya.

### **1.4 Objectives of the Study**

1. To determine the availability of Visual Learning Aids in in Cheplelaibei North Secondary school in Soy Sub county ,Uasin Gishu County.
2. To assess the usage of Visual Learning Aids in teaching and learning of reading and writing skills
3. To analyze the effectiveness of Visual Learning Aids on the reading and writing skills among form one students in Kenya
4. To determine the challenges encountered by teachers and learners in using Visual Learning Aids resources.

### **1.5 Research Questions**

1. What is the availability of Visual Learning Aids in selected secondary school in Kenya?
2. How is the usage of Visual Learning Aids in teaching and learning?

3. How effective is the use of Visual Learning Aids in enhancing reading and writing skills?
4. Which challenges do teachers' and learners' encounter when using visual aids in teaching reading and writing skills?

### **1.6 Research hypothesis**

**H<sub>0</sub>1:** Visual Aids have no effect on reading and writing of students in rural secondary schools.

### **1.7 Significance of the Study**

Visual aids are the devices that help the teacher to clarify, establish, correlate and co-ordinate precise conceptions, understandings and appreciations and support them to make learning more actual, active, motivating, encouraging, significant and glowing (Daniel Tang Kuok, 2018). This study will be significant since every individual has the tendency to forget. Proper use of visual aids helps to retain concepts permanently. Students' understanding of concepts are enhanced through use of visual aids. Visual aids grow the accurate image when the students see and hear properly. Visual aids provide complete example for conceptual thinking. Visual aids create the environment of interest for the students. Visual aids help to increase the vocabulary of the students and help the teacher to get some time to make learning permanent. Visual aids provide direct experience to the students.

This study is significant considering the important role English language plays in the teaching and learning in general and in language acquisition. In the 21st Century, as networked technologies strengthen nearly all human activities, it is nearly impossible to think of most instructional environments without skills of communication and collaboration entirely. Visual aids into the classroom can help transform the classroom

experience from a classic teacher centered one into a student-centered experience – with students taking a more active role in their learning. In a student-centered classroom, the teacher becomes more of a guide as the students engage with and tackle the day's lesson. It is hoped that the findings will serve as a basis for assisting teachers of English language to choose appropriately the visual aids to be used in teaching reading and writing skills that will greatly enhance reading and writing skills in the learner. This will undoubtedly promote the teaching of reading and writing skills. It is hoped that curriculum planners will be able to pay more emphasis on developing content that enhances the availability and utilization of visual aids for development of reading and writing skills among learners. The study focused on the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya.

### **1.8 Scope of the Study**

The study analyzed the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya. This study focused on: availability of visual learning aid resources, the usage of Visual Learning Aids in teaching and learning of reading and writing skills, the challenges encountered by teachers and learners in using Visual Learning Aids, and the effectiveness of Visual Learning Aids on the reading and writing skills. The study was undertaken in a secondary school in Soy Sub County in Uasin Gishu County. Soy is one of the five counties in Uasin County. The sub county neighbors Turbo, Moiben and Ainabkoi. It is located along Kitale road. Soy sub-County was considered for study as such a study has never been done in the sub-county. The sample comprised of form one students in Cheplelaibei secondary school.

## **1.9 Theoretical Framework**

A theory is a reasoned statement or group of statements that are supported by evidence meant to explain phenomena (Kombo & Steve 2006). Thus a theoretical framework is a foundation which represents a range of theories or a theory that guides a researcher on a relevant topic of study. A theoretical framework comprises the theories expressed by experts in the field into which a researcher plans to research. It is therefore a theoretical coat hanger for organizing research, data analysis and interpretation of results. Put differently, the theoretical framework is a structure that summarizes concepts and theories, which is developed from previously tested and published knowledge which is synthesized to help one have a theoretical background, or basis for data analysis and interpretation of the meaning contained in a research data (Kivunja, 2016). Swanson (2013, p. 122) explicitly asserts, “The theoretical framework is the structure that can hold or support a theory of a research study”. This study therefore was based on The Dual Coding Theory.

### **1.9.1 Dual-Coding Theory**

The theory that was used is the theory of cognition, hypothesized by Paivio 1990. According to him there are two ways a person could expand on learning that is verbal and visual. Thus, this theory postulates that both visual and verbal information is used to represent information. Visual and verbal information is processed differently along distinct channels in the human minds creating separate representations for information processed in each channel.

Paivio said in his theory, verbal information is obtained from sensory memory to visual processors. When referring to the retrieval of information from memory systems, this theory claimed that memory contained a setup of networks with different paths, verbal

and image which led to the same information. He concluded that the more ways a learner uses to remember information, the more the students can memorize that information.

There are general theoretical views and evidence on the effects of the dual coding theory experience on the brain and behavioral development. The research by Ericsson and his colleagues (Ericsson, 1996) sustained that deliberate practice is necessary for high-level performance skills in various non-verbal as well as verbal domains. McCune (2006) suggested that “Dynamic event word meanings based on pre-linguistic cognition further provide the meanings observed in verbs of early sentences” (p. 90). Neuman (2001) emphasized the role of knowledge in early literacy. Paivio (2006) emphasis on the primacy of language experience in education programs can be seen even in programs designed especially for socially-disadvantaged children. The DCT recommendation emphasizes experiences that particularly stimulate growth of the nonverbal side of dual coding systems. DCT experiments can be prompted to use imagery and dual coding variables effectively in memory and other cognitive tasks. The evidence supports the DCT prescriptive principles of fostering the development of verbal and nonverbal systems by concretizing abstract verbal information on one hand and verbalizing to concrete information on the other (Paivio, 2006; Sadoski & Paivio, 2001)

Paivio's dual-coding theory is appropriate in reading, as beginning readers learn to read concrete words by sight much faster when the words are accompanied by referent pictures than when paired only with their pronunciations. Concrete verbal material enhances reading comprehension and recall in children and adults. Concrete advance organizers (e.g., brief written texts read prior to other texts) improve comprehension and recall of instructional text. Such results presumably reflect the various contributions

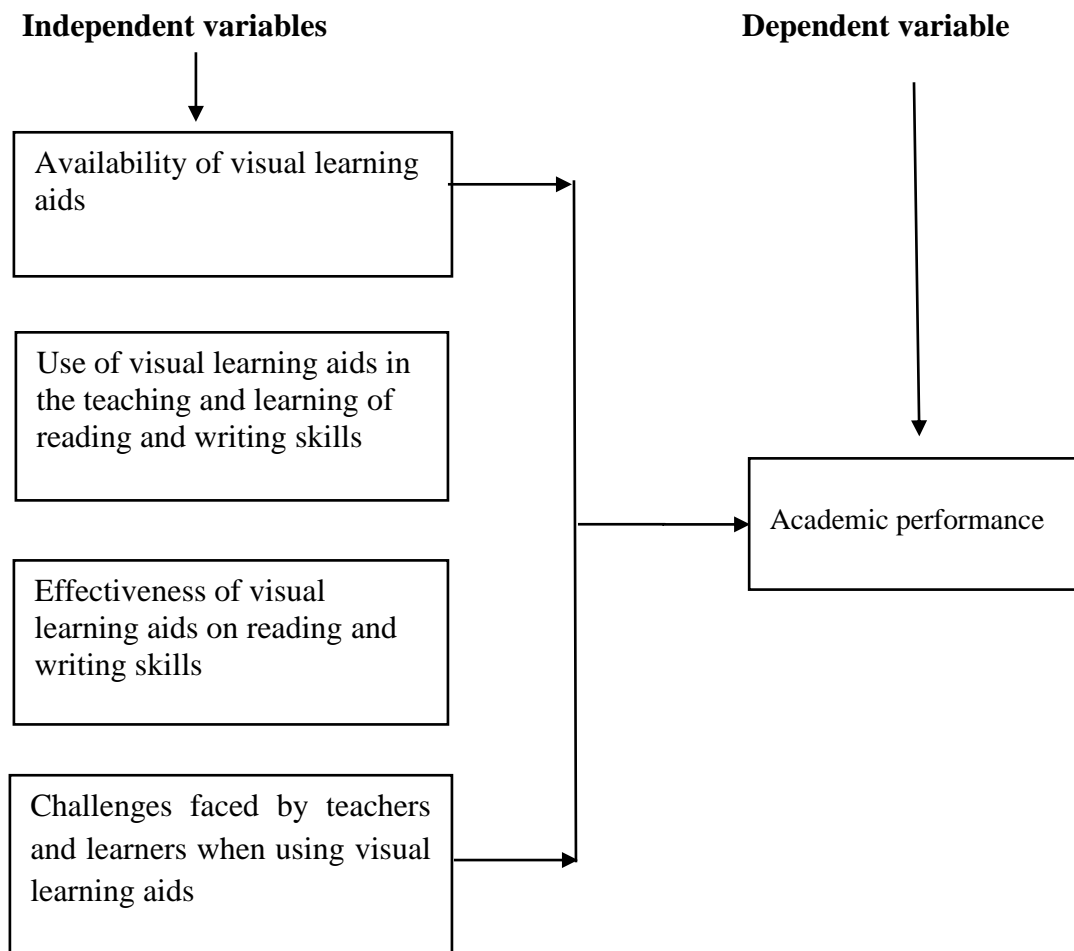
of concreteness-evoked imagery and dual coding to the meaningfulness, memorability, and irretrievability of information in text. Instructing learners to form images during reading further enhances reading comprehension and vocabulary learning. Combining pictures, mental imagery, and verbal elaboration is even more effective in promoting understanding and learning from text by students ranging from grade school to university level. Mayer (2001) made the following recommendations about multimedia learning: (a) use words and pictures rather than words alone, (b) present pictures and corresponding words or narrations close together in space or time, (c) minimize extraneous (irrelevant) details, and (d) present words as speech rather than on-screen text in animations (presumably to minimize modality-specific interference). These recommendations accord with the practical implications of DCT. The use of concreteness, imagery, and dual coding makes students' writing more readable and memorable. Such verbal associative techniques as listing relevant words that could be used in writing about a topic and practice combining sentences improve such features as organization and syntactic fluency of writing. Methods that implicate dual coding principles have been used in remedial education for learning difficulties. The methods can all be classed as augmentative aids in that they supplement traditional classroom teaching methods. All make use of nonverbal stimuli and some encourage use of imagery. Decoding ability is measured by tests that require reading words or naming letters aloud. Comprehension tests require understanding what words and text mean. It is relevant that decoding and comprehension are not highly correlated.

Instruction entails progressive buildup of imagery to larger and larger text segments—words, phrases, sentences, texts—with learners being encouraged to describe their images in increasing detail. Higher order comprehension involved in inference, prediction, and evaluation is dealt with through imagination and verbal elaboration.

This instructional technique thus teaches learners how to concretize text using imagery and dual coding as they read.

The principle recall/ recognition is enhanced by presenting information in both visual and verbal form. Therefore, in this study, the theory holds that academic performance realized through reading and writing depends on the availability and use of Visual Learning Aids in the teaching and learning process.

### 1.10 Conceptual Framework



**Fig. 1.1: Conceptual Framework**

**Source:** (Author, 2023)

A conceptual framework is a scheme of concepts or variables which the researcher operationalizes in order to achieve the research objectives (Serem, Boit and Wanyama (2013:16). It is a schematic presentation of a theory. Ravitch and Riggan (2016) define the conceptual framework as an argument about why the topic one wishes to study matters and why the means proposed to study it are appropriate. Merriam and Tisdell (2016) defined conceptual framework as the underlying structure, the scaffolding or frame of your study.

Therefore, a conceptual framework helps to first identify and then clarify what you know and value as central aspects of a study and then to connect these with the other aspects that influences your research (Ravitch and Riggan,2016).The goal of a conceptual framework is to categorize and describe the concepts relevant to the study and map relationships among them (Rocco and Platkhotnik,2009).Therefore, the conceptual connection with other concepts creates a framework of interlinked concepts (Tamene ,2016).

There are different variables in a research work but for this study, the two keys are independent and dependent variables. The presumed cause in a cause-and-effect relationship is called the independent variable while the presumed effect is called the dependent variable. (Flannelly et al, 2014) the independent variable is the variable that is presumed to have an effect on another variable (dependent). The dependent variable is thus the main variable in a study and is the problem that calls for a study.

In this study, the independent variables are; effectiveness of Visual Learning Aids on enhancing reading and writing skills among form one students, availability of Visual Learning Aids ,the use of Visual Learning Aids in teaching reading and writing skills and the challenges faced by teachers and learners when using Visual Learning Aids . The dependent variable is Academic performance.

### 1.11 Operational Definition of Terms

<b>Academic performance</b>	- is the extent to which a student, teacher or institution has attained their short or long-term educational goals.
<b>Visual Learning Aids</b>	- Visual aids are tools that help to make an issue or lesson clearer or easier to understand and know (pictures, models, charts, maps, videos, slides, real objects etc.)
<b>Environment:</b>	All the surrounding and conditions that can be manipulated to support the use of Visual Learning Aids. They involve both school and home surrounding.
<b>Learner centered methods:</b>	Teaching methods which consider the learner the most important and at the centre of knowledge acquisition. It involves giving the learner a chance to participate in the use of Visual Learning Aids .
<b>Teaching/learning resources:</b>	Materials that aid in the teaching/learning process. They include sources of knowledge such as reading materials.

### **1.12 Chapter Summary**

This chapter presents the general overview of the research. It stated the need for carrying out the study on the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya. It is presumed that it is through Visual Learning Aids that learners acquire reading and writing skills to enable them tackle issues in other skills of English language such as listening and speaking.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The purpose of this experimental study is to analyze the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya. This chapter consists of analysis of literature focused on the study objectives. The objectives to be discussed include: the availability of visual learning Aids in in Cheplelaibei Secondary school in soy sub county ,Uasin Gishu County, the level of use of Visual Learning Aids in teaching and learning resources, challenges faced by teachers and learners in using Visual Learning Aids in teaching and learning and analyze the effectiveness of Visual Learning Aids on reading and writing among form one students in Kenya.

#### **2.1 Visual Learning Aids**

Visual aids are apparatus used by students Laurillard (2013), to help understand or make a lesson understood easily and known. Visual aids are the devices used in classrooms to encourage and facilitate the learning process for students. (Rasul et al. 2011). Rasul and the team further assert that visual aids are the best method to render effective teaching and the best dissemination of information.

Visual aids therefore are resource materials and devices that appeal to the sense of sight and touch as well as sense of smell (Rasul et al. 2011). They consist of:

- a. Non-projected aids which include boards ,Pictorial aids / photographs, charts, pictures, diagrams, posters, cartoons, graphs, comics ,flashcards and books
- b. Three-dimensional aids.

- c. Projected aids which include film-strips and slides, and slides projector.
- d. Laboratory equipment, chemical and apparatus.
- e. Globes, Maps, Symbols
- f. Real objects: specimen, dioramas, puppets,
- g. Field trips, Exhibitions, Demonstrations, Display board
- h. Projected motion media: movies, tv, video (vcd, dvd, vtr), computers and also the like.
- i. Study tour media: learning directly onto the object or study places like museums, temples, etc.

For the purpose of this study, the following visual non-projected aids were analyzed: pictorials, real objects, flash cards, posters and books because they are easily available in the Kenyan schools.

## **2.2 Effectiveness of Visual Learning Aids in enhancing reading and writing skills**

Mathew and Alidmat (2013) examined the usefulness of audio-visual aids in English as a Foreign Language (EFL) classroom at graduate level at the University of Aljouf, Saudi Arabia. Sequel to the results, it emerged that EFL textbooks with technological aids are often seen as support and encouragement in classroom instruction. However, a close review of classroom teaching aids and tools uncovered several problems in the sense of teaching and learning in the EFL classroom. The perspectives, problems and implications discussed in the paper are useful for English-language educators, administrators, curricula designers and English-language teachers in a foreign language environment.

The study by Mathew and Alidmat (2013) focused on the usefulness of EFL audio-visual aids. It is, however, a dispatch from the present study in a number of ways. First

of all, the study was carried out in the context of Saudi Arabia and based on undergraduates at the University of Aljouf. . Secondly, the study targeted audio-Visual Learning Aids which is a deviation from the current study thus, the study fails to address the variables in the current study. Punzalan (2018) evaluated the impact of the visual arts on academic performance of students in a state university . The study had used the design of experimental research. Following the findings, a significant difference was revealed in the posttest performances of the experimental and control groups; in other words, the group that used the visual arts to study art appreciation recorded improved performance than those who used the traditional lecture-discussion method. In addition, further analysis of data indicated that the use of visual arts in different learning areas encouraged students to participate in the learning process and in turn boost their confidence. Thus the study targeted college students which is a deviation from the current study .

The current study focuses on the effectiveness of Visual Learning Aids in enhancing reading and writing among form one students in the Kenyan context.

### **2.3 Availability of Visual Learning Resources**

Kurgatt and Omuna (2016) analyzed the availability and use of visual materials in schools to improve the development of the writing skills of pupils in upper elementary schools. The design used for the research was descriptive survey design. Multistage and purposive sampling were used to select 21 public schools. A total of 42 teachers and 84 students of class 7 participated in the study. Information was collected through questionnaires, structured interviews and observations. It was found that printed materials were the principal resources available in the classrooms in most schools, with 36 out of 42 teachers specifying that they were obtainable and adequate.

Kaswa (2015) looked at the effects of Visual Learning Aids on student academic performance in public secondary schools in the Magu District. A sample size of 102 people were used in the study. The study evaluated the ability of four Magu schools in the 2013 and 2014 National Form Four Examinations, in which two schools did use Visual Learning Aids and two schools did not use them. The study also investigated the type and quality of the aids used. The study also looked at the factors that made some schools use the aids and barriers in other schools, and lastly, the study looked at other barriers that inhibited the performance of public secondary schools in the district. Questionnaires, documentary reviews and cross-examination interviews were used to gather data.

The findings, it emerged that Magu and Kitumba Secondary Schools which used learning aids had better results for the years 2013 and 2014, Furthermore, it was revealed that schools used learning aids that have been in poor condition, the greatest barrier being inadequate budget allocations.

The above studies give a reflection of the effect of visual aids in the general performance of students and the effect of visual aids on writing skills only.

#### **2.4 Use of Visual Learning Aids**

Yunus et al., (2018) looked at the effects of teachers' perceptions on the use of visual aids such as animation videos, photos, films and projectors as a motivational tool to enhance students' interest in reading literary texts. The approach of mixed method was used to collect the necessary data. The sample comprised of 52 English teachers in seven national secondary schools in Kapit, Sarawak, Malaysia. Five of the respondents were also randomly chosen for the interview. The findings showed that the majority of teachers had positive perspective of the use of visual aids. The use of visual aids had

enabled teachers to engage their students closely with literary texts and to make it easier for students of different levels of English proficiency to read texts with interest.

Similarly, Ilomo (2017) examined the impact of visual aids on the promotion of English language teaching in English middle primary schools: a case study in the Meru district. The study also used a mixed method in which both quantitative and qualitative data collection techniques were used. Quantitative data were collected by means of a questionnaire while qualitative data were collected by observation and interview schedules.

The results of the study on the use of visual aids in English language teaching in English medium primary schools revealed these results that visuals such as movies, video, power points are rarely used in English language teaching, implying that visuals are rarely used in English language teaching. The results of the study from the classroom observation showed that in English language classes, where visuals were used correctly, the pupils had a positive response in the sense that they reacted enthusiastically to the lessons. The students paid more attention to instructions, understood the lesson well, involved in the class by giving different answers.

Focusing on the effects of the teachers' perceptions on the use of visual aids such as animation, Yunus *et al.*, (2018) the study was conducted in Saudi Arabia. The current study is a replication of the study by Yunus *et al.* (2018) but examines the effectiveness of Visual Learning Aids in reading and writing among form one students in Kenya. Notably, this study has addressed the variables under study hence need for replication of the same in the Kenyan context. The study conducted by Ilomo (2017) on the effect of visual aids in supporting English language teaching in English medium primary

schools deviates from the current study as it is focused on English language in primary schools, it is a dispatch from the current study.

### **2.5 Challenges encountered in using visual aids in teaching reading and writing**

According to Emery (2012), one of the most often mentioned problems encountered by English teachers is that “overcrowded classes and the effect of such condition can have on teaching and learning”. As classes are crowded, most of the students do not have enough practice in English and do not overcome language learning problems and are not proficient enough to communicate in the foreign language. Because in the limited hours of instruction, they normally could not have the chance of learning English especially the most favored skills of listening and speaking.

Reading in the second language is different from reading in the first language as the nature of second language proficiency may affect the reading and writing skills in it. According to Lerner (2000) “children who get off to a poor start in reading rarely catch up; poor first grade readers are likely to continue to be poor readers. For some children, reading skill does not develop naturally; therefore, decoding, word recognition and reading comprehension skills need to be taught directly and systematically.

To investigate the reasons of reading and writing difficulties, Hartney (2011) stated that most problems of today’s adolescents and adults are because of problems that might be neglected or avoided in their childhood.

Reading and writing can be affected by reading habit and use of digital equipment. Studies showed that a reading habit started at a young age can create a good impact on reading and it is effective for academic success too (Akarsu and Dariyemez, 2014).

Teaching materials help a teaching and learning process; the teaching materials must be suitable for students' needs. Selection of materials for classroom use is a challenging task for a language teacher as it provides a platform through which students learn English Language.

Ajibola (2010) argues that “the inadequacy of resources also constitutes a trial to the English teaching and the larger number of students is the large number of sources is needed.” Applying appropriate teaching methods and techniques is tough because the teachers do not merely think of how to transfer four language skills, but also how to retain students' motivation and enthusiasm in learning and practicing English (Ansari, 2012).

## **2.6 Related studies**

Saima Rasul , Qadir Bukhsh and Shazia Batool (2011) carried out a study to analyze the effectiveness of audio visual aids in teaching learning process at university level. The data was analyzed by using standard deviation and Z test. On the basis of findings, It was found that, the respondents viewed that A.V aids play important role in teaching learning process, A.V aids make the teaching and learning process effective, the respondents viewed that A.V aids provide knowledge in depth and detail and it brings change in the class room environment. It motivates the teachers and students. On the basis of findings of the study, the following recommendations were made, Teachers may be trained in using A.V aids, Teachers may plan before using A.V aids, University may provide proper facilities of A.V aids, A.V aids may be according to level and interest of students and training may be provided to students for proper use of A.V aids. The study was descriptive research in nature.

Dr. Shri Krishna Mishra & Professor Badri Yadav (2014) carried out a study on Audio-Visual Aids & The Secondary School Teaching. They posit that only through the use of proper audio-visual aids that the life situation can be done in the class room by an enlightened teacher in their simplest form and representing the original to the highest point of similarity which is totally absent in the verbal or lecture method. In the presence of audio aids, the attention is attracted, interest roused and suitable atmosphere for proper understanding is automatically created, but in the existing traditional method greater efforts are to be made in order to achieve the aforesaid essential requisite. Inspire of the best and sincere efforts on the side of the teacher the effect as regards understanding or learning in general is quite negligible.

Samreen Akram and Sufiana and K. Malik(2012) studied the Use of audio visual aids for effective teaching at secondary schools level. On the basis of data analysis, the study found that: Audio-visual aids are an important tool of the teaching and learning process, and they make teaching-learning process more successful and interesting. The knowledge about the correct use of audio-visual aids enhances the understanding of the students in the classroom and helps improve teachers' role in realizing the learning outcomes. A teacher is likely to motivate students better with the use of audio-visual aids in teaching learning process. Use of audio-visual aids helps in supplementing the attention level of the students while increasing their understanding and intellectual capacity. Benefits of using audio-visual aids in teaching-learning sessions was found convincing from the responses collected from respondents who endorsed the beneficial effects of using audio-visual aids on students learning achievements. The results of the study show that there is a positive relationship between facility of audio-visual aids and the teacher's attitude. Because of surrounding environment; teacher's attitude changes i.e., if facility of audio-visual aids is available in schools, then teacher's attitude towards

using them changes to a greater extent. The study was descriptive in nature and data for the study was collected through use of questionnaire.

The present experimental study departs from the above related studies as it focuses on Visual Learning Aids only. The study therefore seeks to analyze the ability of teachers to utilize the already available visual aids in their teaching to enhance the formative performance of the learner which the above studies did not.

### **2.7 Chapter Summary**

The literature reviewed gives clear guidelines on how Visual Learning Aids can be used to enhance reading and writing lessons and how they should be organized. The importance of visual aids to teach reading and writing skills, the role played by learning activities to reinforce learning of reading skills and writing have also been highlighted.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.0 Introduction**

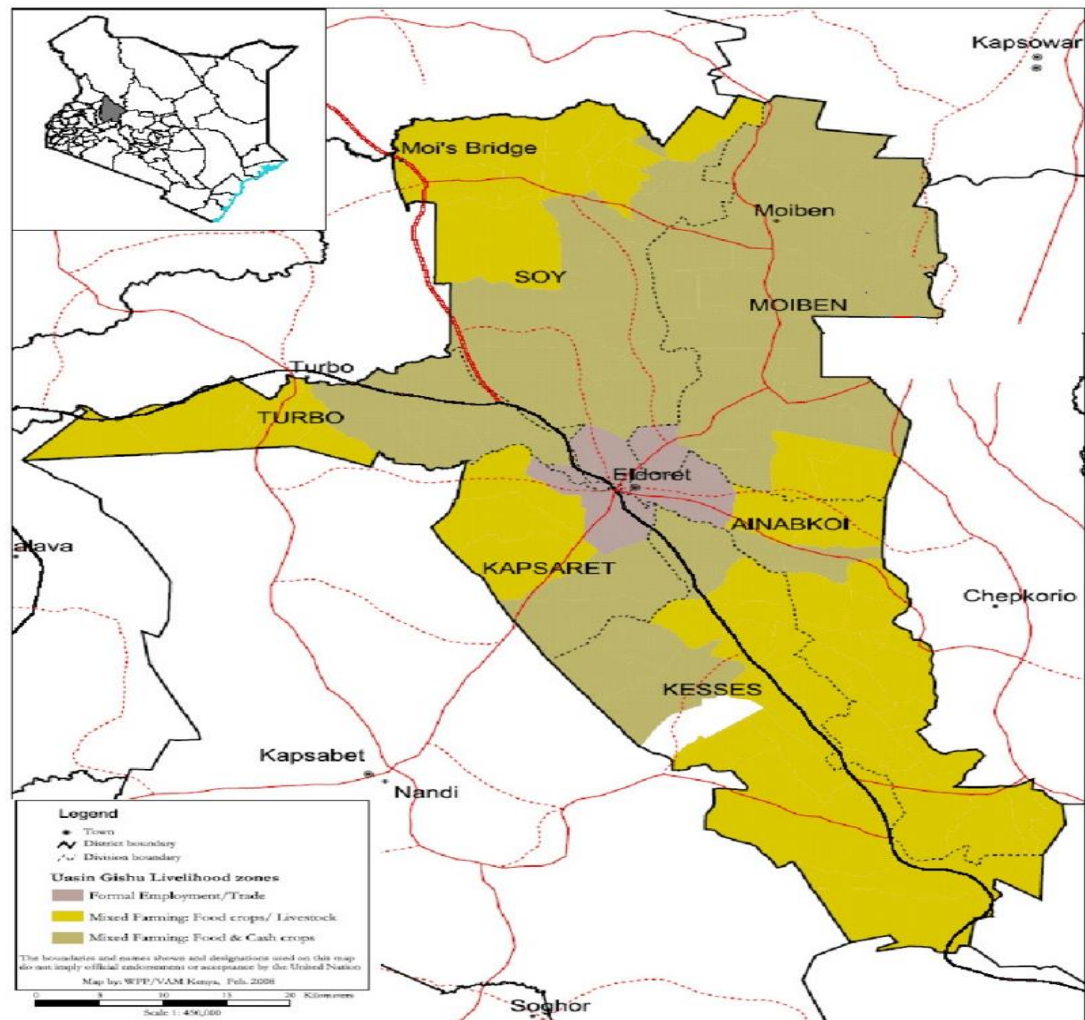
The purpose of this study is to analyze the effectiveness of Visual Learning Aids in enhancing reading and writing skills among form ones of Cheplelaibei North Secondary Uasin Gishu, Kenya. This chapter presents the research design and methodology of this study. In this chapter, the research design and methodology are discussed. A research design is a conceptual structure within which research is conducted. It constitutes the blue print or the procedures followed in collection, measurement and analysis of data (Boit and Wanyama, 2013). It focuses on the decisions regarding what, where, when, how much and by what means concerning a research study. Methodology on the other hand is a way to systematically solve a research problem. Kirui (2015) explains that Methodology is a key element in a research. It outlines the strategy for conducting a research in order to answer the main research question. The purpose of the study is to analyze the effectiveness of Visual Learning Aids in enhancing reading and writing skills. This section provides a description of the research design, target population, sample size description and sampling procedures, data collection tools, data analysis and ethical considerations.

#### **3.1 Research Design**

This research analysis used mixed methods. The researcher used Quasi-experimental design which is the Pre-Test, Post-Test Control Group, was used to assess the effect of Visual Learning Aids on student reading and writing skills between experimental and control groups. Therefore, the analysis used a descriptive research survey method.

### **3.2 Study Area**

The study was undertaken in a secondary school in Soy Sub County in Uasin Gishu County. Soy is one of the five counties in Uasin County. The sub county neighbors Turbo, Moiben, Ainabkoi. It is located along Kitale road. The research was conducted at Cheplelaibei North Secondary School in the Soy Sub-County. The ideal setting for any study should be made available to the researcher and to allow for an immediate relationship with the informants (Singleton 1993). The school in Soy Sub-County is accessible. The school is chosen because of its rich cosmopolitan population and the different backgrounds of students, which provided the study with a target population that is representative of other schools in Kenya. The researcher used the form one students in the school, to obtain data. This school has student population that represents students from both rural and urban settings. They provide wide and varied data that was used to make conclusions on effectiveness of Visual Learning Aids in enhancing reading and writing skills in secondary schools in Kenya. The researcher assumes that the field of analysis should be generalizable and offer a varied view of the problem under review. However, the option of study area does not make the other sections of the country less important. The choice of field of research is driven by the need to make full use of the most likely resources available in terms of energy, human capital and finances. The study area is as shown in figure 3.1.



**Fig. 3.1: Map of Soy Sub County**

### 3.3 Study Population

The target population is the entire community of people, events or artifacts with specific observable traits from which the researcher attempts to generalize the findings of the study (Kothari, 2014). The target population is the open population within the study field that the researcher aims to analyze. It comprises of the entire number of subjects or the overall environment targeted for the study (Oso and Onen, 2009). The population of concern in this research was comprised of form one students in Cheplelaibei North secondary ,Soy Sub County. The target group comprised of all 60 students.

### **3.4 Sample Size and Sampling Technique**

The sample size for this study comprised of all form one Cheplelaibei North Secondary School students (for generalization purposes). For the ease of this study, the 60 students were categorized into two groups; one group was controlled while the other was experimental.

#### **3.4.1 Census Technique**

All items in any field of inquiry constitute a Universe or Population. A complete enumeration of all items in the 'population' is known as a census inquiry. It can be presumed that in such an inquiry, when all items are covered, no element of chance is left and highest accuracy is obtained. Kothari, (2014). This study followed a survey methodology since the sample units are not many and the participants were centralized at Cheplelaibei North Secondary School. In addition, all elements of the population were accessible in terms of expense, resources and time. Such a methodology enhances the validity of the data collected by including some information-rich case studies (Thornhill and Saunders, 2000). Furthermore, the study population differs in its characteristics and, therefore, the researcher wishes to acquire this diverse range by means of a census technique.

### **3.5 Description of Data Collection Instruments**

Research instruments are methods for data collection, such as a quantitative standardized instrument (Creswell, 2013). Testing instruments are devices used to gather information from the planned sample size. The research tools for this study were the test (pre-test and post-test), the observation schedule for the observation of lessons, the interview schedules and document analysis. Primary and secondary data was used in this study. Tests, observation schedule, document analysis and interview guides were

developed by the researcher to obtain information from both students and teachers and were used as follows;

### **3.5.1 Observation Schedule**

The sampled teachers were subject to both participant and non-participant observation to ascertain the implementation of VL learning during teaching. The researcher used the observation schedule, which included questions that were used to assist the study to determine how teachers adopt the specific VL teaching skills. (Appendix). Mackechnie , (2008) define observation as a systematic analysis of events, actions and objects in the social context chosen for the research. Observation allows the researcher to identify current circumstances using the five senses that provide a true image of the situation under analysis, thereby providing in-depth and accurate information on the subject. In addition, the approach provides insight into the underlying behavior and attitudes knowledge. According to Dewalt and Dewalt (2002) experience, the researcher has the ability to establish a comprehensive view of the understudy of phenomena that is as unbiased and reliable as possible despite the setbacks of the process. Observation therefore also is used to accelerate the validity of the study, as observations help the researcher to gain a deeper understanding of the context and phenomena under study.

Dewalt and Dewalt (2002) argues that the use of additional strategies used in conjunction with observation, such as interviews, surveys, questionnaires or other quantitative data collection methods, is stronger. Observation was used in this report, where the researcher observed VL aids, the disparity between VL aids and conventional teaching methods, the degree of contact between teachers and learners, and the delivery of lessons in accordance with the lesson plan.

### **3.5.2 Interview schedule**

According to Calmorin & Calmorin (2007), interviews are used to obtain information from respondents in order to draw a conclusion. The interview was held with the only experimental group of teachers in charge. Interview questions for teachers focused on the following facets: the availability of visual learning resources, the usage of visual learning resources for teaching and learning, the assessment of how Visual Learning Aids affect the academic performance of form one students. The interview was used as a complementary tool to enhance the information that was obtained from the observation schedule.

### **3.5.3 Document Analysis guide**

For the case of this study, the researcher analyzed the reports on the formative tests that the form one class did in pretests and posttests. Document analysis is a systematic procedure for reviewing or evaluating documents both printed and electronic (computer-based and Internet-transmitted) material. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008) Documents contain text (words) and images that have been recorded without a researcher's intervention.

Documents that may be used for systematic evaluation as part of a study take a variety of forms. They include advertisements, agendas, attendance registers, and minutes of meetings, organizational or institutional reports, survey data and other records. Researchers typically review prior literature as part of their studies and incorporate that information in their reports. The analytic procedure entails finding, selecting, appraising (making sense of), and synthesizing data contained in documents. Document

analysis is often used in combination with other qualitative research methods as a means of triangulation—‘the combination of methodologies in the study of the same phenomenon’ (Bowen,2009). By triangulating data, the researcher attempts to provide ‘a confluence of evidence that breeds credibility’ (Bowen,2009). By examining information collected through different methods, the researcher can corroborate findings across data sets and thus reduce the impact of potential biases that can exist in a single study.

### **3.6 Piloting**

A pilot study was carried out to determine the trustworthiness of the instruments. Cohen, Manion and Morrison (2007), assert that, a pilot has several functions, principally, to increase the trustworthiness and practicability of the research instruments, to check the clarity of the items, instructions and layout, to gain feedback on the credibility of items, to eliminate ambiguities or difficulties in wording, to check readability levels for the target audience, to gain feedback on the type of questions and their format and to identify omissions, redundant and irrelevant items. Two schools in similar categories with those of the study sample were purposively selected from Uasin Gishu County, for a pilot study. The researcher chose Uasin Gishu County because their students’ entry requirements are comparable to the students of the population from which the sample for the study was taken. These schools also have other similar characteristics such as, the category of the schools and the catchment area. They are Sub county schools similar to Cheplelaibei, in the study sample. The schools are also situated in a rural setting just like the selected for this study. The researcher approached the principals of the two schools and sought permission to undertake the pilot study. The researcher explained to the participants the purpose of the research and clearly

specified the ethical issues to be considered. 10 form one students were selected to participate in the pilot study.

### **3.7 Validity and Reliability of the Research Instruments**

#### **3.7.1 Validity**

The general definition of validity can be characterized as the way to which the test measures what it claims or purports to measure (Christensen and Burke, 2012). Before being applied to the actual respondents in this sample, the researcher tested content validity of the research instruments. Content validity is a non-statistical form of validity that requires a systematic analysis of the test material to assess if it covers a representative sample of the activity domain to be evaluated (Kumar ,2011). Content validity proof reflects the degree to which the content of the test corresponds to the content domain associated with the construct. Content-related proof usually includes subject matter experts testing test items against the test requirements. The material validity of the test is built into it by careful selection of the items to be used (Kumar,2011). Validity therefore has to do with how reliable the data collected in the study reflect the variables of the sample. The researcher used the face and content validity which is the judgment that an instrument is measuring what it is supposed to and is primarily based upon the logical link between the questions and the objectives of the study (Kumar 2011). Content validity is also judged on the basis of the extent to which statements or questions represent the issue they are supposed to measure, as judged by the researcher and experts in the field. The validity of the content should be assured by expert judgment (supervisors), where copies of the interview schedules are provided to superiors and colleagues for cross-checking in order to assess the validity of the interview.

### **3.7.2 Reliability**

The reliability of the instrument is an indicator of the degree to which the research instrument produces consistent results or data after repeated tests (Mugenda and Mugenda 2003). A pilot analysis was performed prior to the main research in order to test the reliability of the testing instrument. According to Ruxton et al (2006), a pilot or feasibility study is a small experiment designed to test logistics and collect information prior to a significantly bigger study to improve its quality and efficiency. A pilot analysis may expose flaws in the design of the proposed experiment and may be resolved prior to fieldwork. The data was obtained by the researcher because she knows the fields, she is interested in.

On the basis of the responses received, the Cronbach alpha formula was used to measure the coefficient of correlation ( $r$ ) in order to determine the degree to which the items in the checklist was consistent in producing the same responses each time they are used. In this study, the correlation coefficient of more than 0.6 was taken as a good measure of reliability.

#### **3.7.2.1 Pretest**

The pre-test is used to measure and ensure the comparability of two groups prior to the treatment (Christensen & Burke (2012). A pretest was done to check on the abilities in reading and writing of the students in form one class for both control and experimental group before treatment was administered to the experimental group. The control group received non treatment activities in order to minimize the placebo effect.

#### **3.7.2.2 Post-Test**

The post-test enables the researcher to determine the quick effect of treatment on the outcome variables (Christensen & Burke, 2012). The main instrument to be used to

collect data after treatment was given to the experimental group. No Visual Learning Aids were used by the control group. The test was administered to the two groups - experimental and control. This was used to test the hypothesis if there is an effect on performance when visual aids are used in teaching reading and writing among form one students. The data was analyzed by analysis of covariance with the pretest scores as the covariate.

### **3.8 Data Collection Procedure**

Relevant documents and approvals must be obtained prior to data collection. The researcher obtained a research permit after approval of the research by the University from the National Commission for Science, Technology and Innovation (NACOSTI). Once the permit was granted, potential subjects were formally contacted by appropriate national and county government officials and their respective representatives. The researcher proceeded to the participants and collected data after permission had been granted. Interview guides were provided at school level to collect data on student enrolment, school lists, reports, visual learning tools and academic performance test reports.

### **3.9 Data Analysis**

Both descriptive and inferential statistical techniques were used during the analysis process. Mean scores and standard deviations were used as the mean is known to be the most efficient measure of central tendency and the standard deviation as the most efficient measure of dispersion. (Shamoo ,Resnik 2003). Descriptive strategies were used to assess the proportion of respondents choosing the various factors that affect Visual Learning Aids on academic performance in the secondary school. Analysis of qualitative data (words or text or images) follow the path of aggregating words or

images into categories of information and of presenting the diversity of ideas collected during data collection. The T-test was used to demonstrate the relationship between visual and audio learning aids to assess whether or not their mean score is important at either 0.05 or 0.01 levels. ANOVA Pearson's Moment Correlation was used for the contribution of each factor to the dependent variable (academic performance). The specific data was analyzed as outlined in the Table 3.1.

**Table 3.1: Summary of Data Analysis**

<b>Research Objective</b>	<b>Methods</b>	<b>Analysis Techniques</b>
<b>Obj 1:</b> To determine the availability of visual learning aid resources in selected secondary schools in Kenya.	Observation checklist /interview schedule	Frequency tables
<b>Obj 2:</b> To assess the utilization level of Visual Learning Aids resources in enhancing reading and writing skills.	observation checklist, interview schedule	Thematic analysis
<b>Obj 3:</b> To analyze the effectiveness of visual learning aids on the reading and writing skills among form one students	interview schedule, document analysis	Thematic analysis frequency tables,t-test
<b>Obj 4:</b> To determine the challenges encountered by teachers and learners in using visual learning aids .	interview schedule,	Thematic analysis

**Source: Researcher, 2023**

### **3.10 Ethical Considerations**

Ethics is concerned with defining standards of conduct that distinguish between acceptable and unacceptable behavior (David and Resrik, 2011, Jwan et al, 2014). It requires ethical considerations to be taken into account when conducting studies involving human beings. These considerations include: consent, courtesy and respect,

equal treatment of persons, privacy, security and freedom to withdraw consent and to withdraw consent and discontinue participation in a research (Hammersley and Traianou, 2012). Research followed these steps by ensuring that the study is conducted in a professional way. A permit from NACOSTI and other relevant authorities were sought before the start of the study. A verbal or written consent was sought from potential subjects before engaging them. A risk evaluation was carried out before the start of the study as a way of ensuring safety of the participants. All participants must be treated fairly with integrity and respect. Privacy and confidentiality would be protected by the use of codes instead of the names of the participants and the distribution of aggregated data only. Participants were also made aware that they are free to withdraw from the study at any time they feel they are in a position to do so or to withhold any information they feel may cause harm.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND DISCUSSION

#### 4.1 Introduction

The analysis of data in this chapter starts with the demographic profile of the respondents and then afterwards follows the research questions of the study. There were a number of data analysis methods employed in this study, among them is descriptive statistics that was used to ascertain the demographic of the respondents in the present study. Descriptive study also was used to compute percentages and means that were obtained out of the pre-tests and post-tests . The means obtained in this particular analysis were used to describe the rating of the respondents on every item of the interviews on the effect of Visual Learning Aids in reading and writing instruction on learner achievement, motivation and attitude on reading and writing in secondary schools.

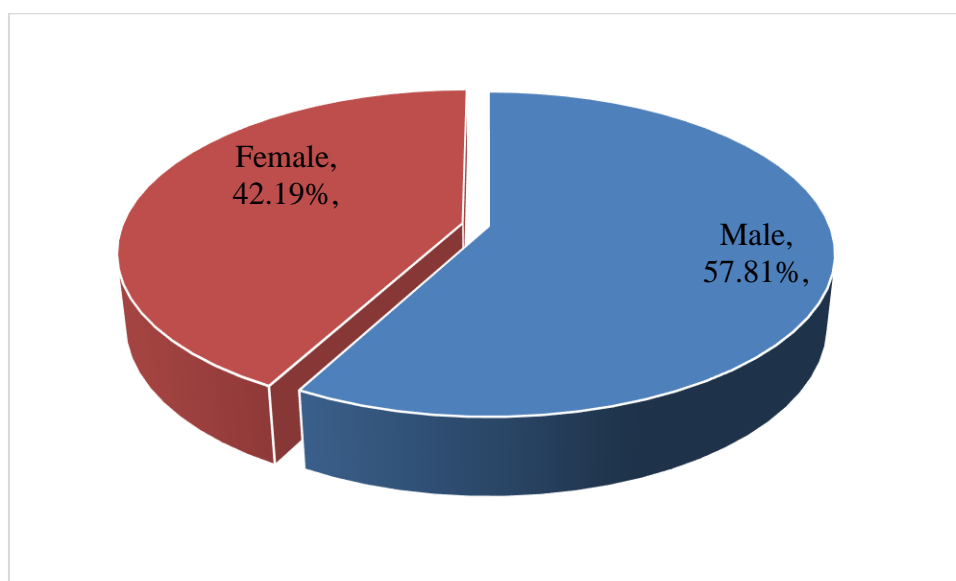
Independent sample t-test was used to find out if there was any statistically significant difference in performance of students, teachers' and learners' perceptions before and after experiment between control and experimental groups. The critical alpha used in the entire study is 0.05 or confidence interval of 95%. The analyzed data was then presented in form of tables and some pie chart and path diagrams.

#### 4.2 Demographic Profile of the Students and Teachers

According to Goldberg *et al.*, (2020), when designing a research, the investigator needs to assess who to survey and how-to breakdown overall survey response data into meaningful groups of respondents. These assessments are usually based on demographic considerations of the study participants. The current study involved 3

teachers and 60 students who were drawn from Cheplelaibei North Secondary School.

Figure 2 presents the percentages of students in each category under study.



**Fig 4.1: Gender of the Respondents**

Figure 4.1 shows that majority (57.81%) of the students who participated in the study were male as compared to their female counterparts. A summary of students who participated in both the pre-test and posttest is presented in Table 4.1.

**Table 4.1: Gender of Students in both pre-test and Post-test**

Gender	Pre-test				Post test			
	Control		Experimental		Control		Experimental	
	F	%	F	%	F	%	F	%
Male	13	43.3	11	42.3	10	43.4	12	48.0
Female	17	56.7	15	57.7	13	56.6	13	52.0
Total	30	53.5	26	46.5	23	47.9	25	52.1

**Source: Field Data, 2023**

Table 4.1 shows that a total of 30 students comprising of 13 (43.3%) male and 17(56.7%) female students participated in the pre-test in the control cohort while 26 students comprising of 11(42.3%) male students and 15(57.7%) female students participated in the pre-test in the experimental cohort. In addition, 23 students

comprising of 10(43.4%) male students and 13(56.6%) female students participated in the post-test in the control cohort while 25 students comprising of 12(48.0%) male students and 13(52.0%) female students participated in the experimental group for the post-test.

#### **4.3 Availability of Visual Learning Aids Teaching Strategy on Reading and writing**

The first objective of this study was to determine the availability of Visual Learning Aids on reading and writing among students in Cheplelaibei North public Secondary School. In order to achieve this objective ,the researcher used observation checklist and interview guide. Based on the observation, the researcher came up with the following findings as indicated in table 4.2.

**Table 4.2 Observation on Availability of Visual learning AIDS in classroom**

<b>VL aids</b>	<b>Available</b>	<b>Adequacy</b>
Pictorials	Yes	Yes
Charts	Yes	Yes
Real objects	Yes	No
Text books	Yes	No
Flash cards	Yes	No
Posters	Yes	Yes

As indicated on table 4.2, the observation of visual learning aids used for teaching English Language, several significant patterns emerged regarding the availability and adequacy of these resources within the school setting. Pictorials, serving as invaluable tools for illustrating and conveying language concepts, were found to be both available and adequate. These visual aids, including diagrams, illustrations, play a crucial role in simplifying complex linguistic elements and facilitating students' comprehension and retention of English language fundamentals.

Similarly, charts were identified as another readily available and adequate resource for educators. These visual representations of grammar rules, vocabulary lists, and language structures provide students with easily accessible references to aid their understanding and application of various language components. The availability of adequate charts contributes significantly to the clarity and visual organization of information in the English Language learning process. However, the findings revealed a disparity in the availability and adequacy of other visual learning aids. Real objects, while present, were deemed inadequate in quantity and variety. Despite their potential to provide tangible and experiential learning experiences, the limited availability of real objects might restrict students' opportunities to connect language concepts with real-world examples, hindering a more comprehensive understanding of the language.

Additionally, textbooks, a fundamental component of language education, were found to be available but insufficient in quantity. Insufficient access to textbooks could impede students' ability to engage in independent study, review language concepts, or explore supplementary material, potentially affecting their overall language proficiency. Furthermore, the availability of flashcards was noted to be inadequate. These compact yet impactful tools for vocabulary building and quick revision play a pivotal role in reinforcing language skills. However, the shortage of flashcards might limit students' opportunities for repetitive practice and memorization, crucial for language acquisition and retention. On the other hand, posters, visual aids that serve as constant reminders of essential language rules and strategies were found to be both available and adequate. These visual cues, displayed in classrooms, contribute to a continuous reinforcement of language concepts and strategies for improved learning outcomes.

The observed discrepancies in the availability and adequacy of visual learning aids for teaching English Language imply several significant considerations for educators and the learning environment. Firstly, the adequacy of pictorials, charts, and posters suggests a recognition of the importance of visual aids in facilitating language learning. The availability of these resources in sufficient quantities indicates an understanding of their value in enhancing comprehension, retention, and application of language concepts. This implies that educators acknowledge the effectiveness of visual tools in supporting students' understanding of English Language elements.

However, the inadequacy of real objects, textbooks, and flashcards reveals potential limitations in providing a diverse and comprehensive learning experience. The scarcity of real objects restricts opportunities for hands-on, experiential learning that can bridge the gap between theoretical language concepts and real-life applications. Moreover, the insufficient availability of textbooks and flashcards hinders students' access to crucial reference materials and tools for independent study, practice, and reinforcement of language skills. This observation implies that a more balanced and comprehensive approach to resource allocation and utilization is necessary in language education. While certain visual aids are available and deemed adequate, ensuring an adequate supply of real objects, textbooks, and flashcards is essential. It emphasizes the need for educators and educational institutions to reassess resource allocation strategies to address these gaps effectively.

Similarly other studies investigated the impact of resource availability, such as textbooks, flashcards, real objects, and other materials, on students' language learning experiences and outcomes. For example, Mike (2019) focused on evaluating how the presence or absence of diverse teaching resources affects students' language

acquisition, proficiency, and overall comprehension. This research examined several types of resources provided in classrooms and their influence on students' learning processes and established that some of the visual learning aids were not adequate.

Likewise, Markers' study in 2018 examined the adequacy of resources available for language education in secondary schools. This research analyzed the challenges students and educators face when resources are insufficient, potentially impacting the effectiveness of language instruction and students' ability to grasp linguistic concepts adequately and found out a deficiency in resources available for language education in secondary schools.

In order to establish more information in the above observation, an interview with the teachers was conducted and they had the following to say regarding the availability of visual learning aids;

**Teacher 3:** *As a teacher involved in teaching English Language, I acknowledge the significance of visual learning aids in facilitating effective comprehension and engagement among students. Reflecting on the availability of these aids within our school, I can confirm that we have a satisfactory supply of pictorials and charts. These resources play a pivotal role in breaking down complex language concepts and providing visual reinforcement, aiding students in grasping and retaining English Language fundamentals effectively.*

*However, I must highlight that there are certain areas where the availability of visual learning aids falls short. While real objects are present, their current availability is insufficient to cater comprehensively to the diverse learning needs of students. Expanding the range and quantity of real objects could significantly enhance our ability to make language learning more relatable and engaging by offering tangible, hands-on experiences for better comprehension.*

*Additionally, although we do have textbooks, the quantity available might not be adequate for every student to have individual access. This limitation could impact students who rely on written materials for in-depth study and reinforcement outside the classroom. Similarly, the availability of flashcards, while present, is not meeting the demand. These resources are vital for vocabulary building and quick reviews, and their shortage might hinder students' ability to reinforce*

*their language skills effectively. On a positive note, we have a satisfactory supply of posters in our school, serving as constant visual reminders of essential language rules and strategies. These posters play a crucial role in reinforcing language concepts and creating an environment conducive to language learning.*

*However, I believe it's essential for our school to reassess the allocation of resources to ensure a more equitable distribution of visual learning aids. Addressing the shortages of real objects, textbooks, and flashcards would significantly enhance the breadth and depth of our language instruction, catering to various learning styles and preferences among our students. By bolstering these resources, we can create a more dynamic and inclusive learning environment that fosters greater proficiency and engagement in the English Language.”*

The teacher's response regarding the availability of visual learning aids for teaching English Language in their school indicates a mixed scenario. While some resources such as pictorials, charts, and posters are available in adequate quantities, there are evident shortages in other crucial aids. The presence of sufficient pictorials and charts underscores the acknowledgment of the importance of visual aids in aiding students' comprehension and retention of language concepts. However, the inadequacy in the availability of real objects, textbooks, and flashcards implies certain limitations in providing a well-rounded and comprehensive learning experience. The scarcity of real objects restricts hands-on learning experiences, while insufficient textbooks and flashcards limit opportunities for in-depth study and vocabulary reinforcement. The positive aspect of having adequate posters emphasizes the role of constant visual reinforcement in supporting language learning.

Similarly, a study by Ambuko (2013) on the selection and utilization of media in teaching Kiswahili language in Kenyan secondary schools revealed disparities in resource availability. It highlighted the importance of visual aids such as charts, pictorials, and posters in facilitating language learning, just as the teacher emphasized their significance in teaching English Language. The study uncovered shortages or

inadequacies in real objects, textbooks, and flashcards used in teaching Kiswahili. This scarcity impacted the effectiveness of the language instruction, limiting opportunities for hands-on learning experiences and supplementary materials necessary for comprehensive language learning.

#### **4.4 The usage of visual learning aids in teaching and learning of reading and writing skills in secondary schools**

The second objective of this study was to assess the usage of visual learning aids in teaching and learning of reading and writing skills in secondary schools. To achieve this objective the study used observation and interview schedule. Based on the observation, the researcher came up with the following findings as indicated in table 4.4.

**Table 4.3 Observation on Use of Visual learning aid in Classroom**

<b>VL aids</b>	<b>Frequently used</b>	<b>Occasionally used</b>	<b>Never used</b>
Pictorials	X		
Charts	X		
Real objects		X	
Text books	X		
Flash cards		X	
Posters	X		

As indicated in table 4.3 it was observed that most frequently used Visual learning aids are Pictorials, Charts, Text books, and Posters. Further real objects and flash cards are occasionally used. This indicated that primarily, the preference for pictorials, charts, textbooks, and posters indicates a reliance on more traditional visual aids that are readily available and commonly integrated into lesson plans. These aids often offer comprehensive and generalized information that can cater to broader topics or concepts within the English language curriculum. Textbooks, for instance, provide structured

content and exercises, while charts and posters offer quick visual references for grammar rules, vocabulary, and other essential language elements.

However, the less frequent use of real objects and flashcards might suggest a potential limitation in diversifying teaching strategies. Real objects offer tangible, hands-on learning experiences that can make abstract concepts more relatable and understandable, especially for visual learners. Similarly, flashcards are highly effective tools for quick vocabulary drills and reinforcement, aiding in memory retention and recall. This observation implies that the teaching approach might benefit from a more balanced utilization of different types of visual aids. Integrating real objects and flashcards more frequently into lesson plans could enhance the variety of teaching methods, accommodating various learning styles and preferences among students. By doing so, educators can create a more dynamic and engaging learning environment that caters to both traditional and hands-on learning approaches. Furthermore, it suggests that there might be a need to assess and expand the range of available teaching resources to ensure a more comprehensive and inclusive learning experience for students. Offering a wider selection of visual aids, including a greater variety of real objects and flashcards, could contribute significantly to a more holistic understanding and application of the English language.

On interview with the teachers, one of the teachers said:

**Teacher 3:** *“In my experience as a teacher facilitating the teaching and learning of reading and writing skills, I've noticed that students tend to particularly enjoy using pictorials, charts, textbooks, and posters as visual learning aids. These tools resonate well with them due to several compelling reasons. Pictorials are a favorite among students because they present information in a visually engaging manner. They find it easier to comprehend complex reading passages or writing concepts when supported by images, diagrams, or*

*illustrations. Visual representations often stimulate their imagination, making the learning process more vivid and memorable.*

*Similarly, charts are highly appreciated by students as they provide a structured and organized display of information. When learning about grammar rules, sentence structures, or literary elements, charts serve as quick references that students can easily glance at to reinforce their understanding. Their clear and concise format aids in simplifying sometimes intricate linguistic concepts. Textbooks, despite being traditional, remain a staple resource for students. They appreciate textbooks because these materials offer a comprehensive repository of information. Textbooks often provide detailed explanations, examples, and exercises that assist students in honing their reading and writing skills. They view textbooks as reliable sources to deepen their understanding of various aspects of language arts.*

*Posters also captivate students' interest as they are visually appealing and serve as constant reminders of key reading and writing strategies. These posters, prominently displayed in the classroom, reinforce crucial elements of literacy—whether it's outlining steps for effective writing or highlighting strategies for improved reading comprehension. Students often find these visual cues helpful in recalling essential information. While flashcards and real objects are occasionally used, their impact on students' engagement cannot be understated. Flashcards, although used less frequently, are appreciated for vocabulary building and quick revision. Real objects, albeit not as commonly integrated, offer a tangible and interactive approach to learning that some students find highly engaging, especially when understanding abstract writing concepts or exploring thematic reading elements.”*

The teacher's response reveals insightful observations about students' preferences and engagement with various visual learning aids in the context of teaching reading and writing skills. The students' strong inclination towards pictorials, charts, textbooks, and posters suggests a keen appreciation for different forms of visual aids due to their distinct attributes. Pictorials are favored by students for their ability to present information in a visually stimulating manner. The inclusion of images, diagrams, and illustrations assists students in comprehending complex reading passages and writing concepts, sparking their imagination and making the learning process more vibrant and memorable. This preference implies that visual stimuli play a crucial role in enhancing students' understanding and retention of language-related topics.

Similarly, the students' appreciation for charts stems from their structured and organized display of information. Charts serve as quick references for grammar rules, sentence structures, and literary elements, providing a clear and concise format that simplifies intricate linguistic concepts. This preference indicates that visual aids that offer clarity and organization contribute significantly to students' ease of learning.

The reliance on textbooks, despite being traditional, showcases students' trust in these resources as comprehensive repositories of information. Textbooks, with their detailed explanations, examples, and exercises, serve as reliable sources that aid students in refining their reading and writing skills. This reliance suggests that students perceive textbooks as valuable tools for deepening their understanding of language arts concepts.

Moreover, the students' interest in posters highlights the significance of visual cues in reinforcing key reading and writing strategies. Displayed prominently in the classroom, posters serve as constant reminders and aids for students to recall essential information. This preference emphasizes the importance of visual reminders in supporting students' memory retention and reinforcing literacy skills.

While flashcards and real objects are used less frequently, their impact on student engagement is notable. Flashcards are valued for vocabulary building and quick revision, indicating their effectiveness in aiding memory recall. Real objects, though less commonly integrated, offer an interactive learning approach that some students find highly engaging, particularly in understanding abstract writing concepts or exploring thematic reading elements.

#### 4.5 Effect of Visual Learning Aids in Reading and writing Achievement

The third objective of this study was to analyze the effect of Visual Learning Aids on reading and writing among students in rural secondary schools in Uasin Gishu. To achieve this objective, the students who were selected to participate in the study were grouped into two groups; experimental and the control groups. Students in the experimental group were subjected to teaching of reading and writing through the use of visual aids approach for a period of one week while students in the control cohort were taught reading and writing using conventional methods of reading and writing teaching. Initially, a pre-test was administered to all students before the intervention period.

However, results of the pre-test were not released to the students so as to ensure that the outcomes of the pre-test did not compromise the outcomes of the post-test. A post-test was thereafter administered to all the students. Before the treatment was given for the experimental group, pretest was given in order to measure students' prior reading and writing skills. Both groups showed similar pretest result which means that the reading and writing skills of the students in experimental and control group were homogenous. The means and standard error of these two tests were calculated and the results for pre-test are presented in Table 4.4.

**Table 4.4: Mean Marks of Students in Pre-Test and Post Test**

Groups	Mean	Std. Error	Mean Gain in scores	Mean difference
Experimental (Use of Pretest Visual aids)	45.2344	.83283	11.6879	5.57
	Posttest	56.9223	.82736	
Control (use of Pretest Conventional methods of teaching and learning)	44.6789	.82226	6.6697	
	Posttest	51.3486	.68267	

Table 4.4 shows that students in the control cohort had a mean score of 44.6789 with a standard error of .82226 while those in the experimental cohort had a mean score of 45.2344 with a standard error of .83283. The results of the pretest were high and this could be attributed to the fact that high school students had initially been introduced to reading and writing in primary education. After the treatment, the mean of the test scores for the experimental group was 56.9223 with a standard error .82736 while that for the control group was 51.3486 with a standard error of .68267. The results show that the mean score for the experimental group increased and was higher than the mean score for the control group which also showed some increment.

The difference in the mean scores between pretest and posttest was 11.68 for experimental group while that for the control group was 6.66. A mean difference of 5.57 was obtained in posttest results between the experimental and the control group. In this case, the use of visual aids resulted to a difference of a mean score of 5.57 and this could be attributed to the change of attitude and the motivation that are associated with visual aids. The general higher improvement of students' performance in posttest was attributed to use of visual aids .

The general improvement between the pretest and post- test results in both the experimental and control groups was attributed to the fact that both student groups were taught reading and writing and tested immediately leading to an expected improvement. Use of visual aids instruction makes learning fun and easier for students to read and write. It also leads to improved memory performance allowing learners to generate ideas, and connect complicated ideas with each other. This enhances the cognitive functions of the brain leading to improved students' performance. Visual aids use also

motivates students to learn and lets them think in a radiant way making them to be capable of generating numerous original ideas.

The difference of 5.57 between the experimental and control group is not that big as expected. This could be attributed to the fact that the time period for exposure to use visual aids as a learning strategy was only one week and thus an increase in exposure periods could also lead to a higher difference in scores. The findings align with Basser's (2019) explored the cognitive effects of visual aids on learning outcomes. Basser's study, highlighted the positive influence of visual aids on students' academic performance. Basser emphasized that incorporating visual elements into educational practices enhanced students' comprehension and retention of information. Moreover, a study conducted by Smith and colleagues (2017) corroborated these observations, emphasizing that the utilization of visual aids not only enhances students' understanding but also boosts their motivation and engagement in learning activities. This study echoed the sentiment expressed in the current findings regarding the change in attitude and increased motivation associated with visual aids.

Additionally, research by Johnson et al. (2020) underscored the cognitive benefits of visual aids, emphasizing the facilitation of improved memory performance, idea generation, and the ability to connect complex concepts. This aligns closely with the assertion in the provided findings that visual aids lead to enhanced cognitive functions, ultimately resulting in improved academic performance among students. The use of visual aids in education appears to offer multidimensional benefits, including improved understanding, increased motivation, and enhanced cognitive capabilities among students. The consistent findings across these studies suggest that integrating visual aids

into teaching methodologies could be an effective approach to foster better academic outcomes.

#### 4.5.1 Impact of use of Visual aids in reading and writing skills

To find out whether there were significant differences in the means as a result of the treatment, the following null hypothesis was tested at significance level of 0.05.

**H<sub>0</sub>:** Visual Aids instruction has no effect on reading and writing by students in rural secondary schools.

The results were subjected to the paired sample t-test where the scores of posttests for the control and experimental group were used. In this case, the experimental group was subjected to use of visual aids during the teaching of reading and writing while the control group were subjected to regular methods reading and writing. First, the results from the pre-tests conducted between the two cohorts were analysed using paired sample t-test. The results of the analyzed information are presented in Table 4.5.

**Table 4.5: T-test for students' pre-test scores**

	Paired Differences					T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Marks achieved by students in Pre-test (Control Group) - Marks achieved by students in pre-test (Experimental Group)	-.03216	9.4890	1.00898	-2.02781	1.95678	-.014	87	.989

Results from Table 4.5 shows that there was no significant difference in scores of students between the experimental and control group for pre-test scores since the p-values were greater than 0.05 ( $p=.989$ ). This shows that before treatment, the

performance of students in reading and writing were similar. Similar studies exploring interventions or educational treatments often encounter initial equivalence between experimental and control groups in their pre-test assessments. This lack of significant differences in the pre-test scores is frequently observed and is often a prerequisite in experimental designs such as randomized controlled trials (RCTs) or quasi-experimental studies. For instance, a study by Johnson et al. (2018) investigating the effects of a math intervention program showed no significant differences in pre-test scores between the intervention and control groups.

Similarly, research by Smith and colleagues (2019) examining the impact of a literacy program found no significant disparities in pre-test scores between the experimental and control groups. This equivalence at the outset of the study indicates that, prior to the intervention, the groups exhibited similar levels of performance in the targeted skills or subject matter. The absence of significant differences in pre-test scores aligns with the fundamental principle of experimental design, ensuring that groups are comparable at baseline before the introduction of any treatment or intervention. This similarity in the initial scores helps to control for confounding variables and strengthens the ability to attribute any observed differences in post-test scores to the specific treatment or intervention administered during the study period.

Further, the results from the post-tests conducted between the two groups (experimental and control) were analyzed using paired sample t-test. The results of the analyzed information are presented in Table 4.6.

**Table 4.6: T-test for post-test scores**

	Paired Differences					T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Marks achieved by students in the post Test (Control Group) - Marks achieved by students in the posttest (Experimental Group)	-4.723	12.524	1.305	-7.201	-2.375	-3.91	121	.000

From the Table 4.6, it was shown that there was a significant difference in scores between the experimental group and the control group since the p-value was less than 0.05 thus the null hypothesis was rejected. The study therefore shows a significant difference in scores between experimental and the control group. This difference is attributed to the treatment that was given to students (using visual aids). This outcome aligns with findings from various studies exploring the impact of interventions or specific treatments on academic performance.

For instance, research conducted by Garcia et al. (2017) investigating the effects of a technology-based learning program demonstrated a similar outcome. Their study revealed a statistically significant difference in post-test scores between the group exposed to the technology-based intervention and the control group. This significant difference was attributed to the specific treatment implemented, mirroring the findings in this study where the use of visual aids was the attributed treatment. Moreover, a study by Thompson and colleagues (2020) exploring the effects of a mindfulness program on student well-being and academic performance also reported a significant disparity in post-test scores between the experimental and control groups. The findings indicated

that the group exposed to the mindfulness intervention exhibited significantly different outcomes compared to the control group, akin to the observed significant difference in this study related to the use of visual aids.

#### **4.6 Challenges encountered by teachers and learners in using visual learning aids resources**

The fourth objective of the study was to assess the challenges faced by teachers and learners in using visual learning aids resources. In order to achieve this, teachers of English were requested to respond to two interview questions.

##### **4.6.1 Specific challenges in incorporating in Teaching reading and writing**

The first question the researcher asked was “. In your experience, what specific challenges have you encountered when incorporating visual learning aids/resources in your teaching methods for secondary school students?”

In response to this question, the interviewed teachers had the following:

***Teacher 2:** “One significant challenge I've faced is the availability and access to suitable visual aids. Sometimes, the school's resources may not align adequately with the diverse topics and teaching strategies required for different subjects. For instance, finding updated, relevant, and high-quality visuals that resonate with the curriculum content can be quite challenging. This lack of appropriate resources sometimes limits the effectiveness of the visual aids and may not fully capture the students' attention or facilitate better comprehension.*

*Moreover, the technological aspect poses another hurdle. In today's digital age, there's a continuous evolution of technology and software tools used for visual aids. Keeping up with these advancements and having the necessary technical expertise to effectively use these tools can be overwhelming. Additionally, technical issues such as unreliable internet connections or malfunctioning equipment can disrupt the flow of a lesson, causing frustration for both students and myself.*

*Furthermore, catering to diverse learning styles within a classroom setting is another challenge. While visual aids work wonders for many students, they may not be as effective for others who might have different preferred learning styles. Adapting visual aids to accommodate different learning styles and ensuring they*

*cater to the needs of all students without excluding anyone is a constant concern”.*

The response from the teacher suggests that utilizing suitable visual aids in education presents multidimensional challenges. The primary obstacle revolves around the availability and adequacy of resources. It's difficult to find updated, relevant, and high-quality visuals that align perfectly with diverse topics and teaching methods across various subjects. This scarcity limits the effectiveness of visual aids, hindering students' engagement and comprehension. He further noted that the rapid evolution of technology adds another layer of complexity. Keeping pace with technological advancements and possessing the necessary technical skills to use these tools effectively can be overwhelming. Technical issues like unreliable internet or malfunctioning equipment further impede the seamless integration of visual aids into lessons, causing disruptions and frustration for both educators and students. Additionally, accommodating diverse learning styles poses a constant challenge. While visual aids suit many students, they may not cater equally to others with different preferred learning approaches. The concern lies in adapting visual aids to accommodate these various styles while ensuring inclusivity, so no student feels excluded or disadvantaged.

A Similar observation was established by Allen's (2020); who noted the persistent challenges faced by educators concerning the availability, quality, and alignment of visual aids with diverse teaching strategies and subjects. He further, noted that the difficulties in keeping pace with technological advancements, coupled with technical issues hinder lesson delivery. Furthermore, the ongoing struggle to cater to diverse learning styles while ensuring inclusivity into the complexities of adapting educational resources to meet the needs of all students.

When asked the same question, the second participant had the following to say:

***Teacher 1:** “In my experience, incorporating visual learning aids and resources into teaching methods for secondary school students, one notable challenge is ensuring that the visuals used are relevant, engaging, and accessible to a diverse group of learners. Every student has a unique learning style and processing ability, so finding visuals that resonate with the entire class can be demanding. Another challenge is maintaining student engagement with visual aids throughout the lesson. While visuals can initially captivate students' attention, ensuring sustained interest and active participation can be demanding.”*

The teacher's insights shed light on the difficulties involved in integrating visual learning aids within the secondary school curriculum. They emphasize the challenge of catering to a diverse cohort of learners with distinct learning styles and abilities. Selecting visuals that resonate universally among students becomes a daunting task, considering the need for relevance, engagement, and accessibility. Each student's unique way of processing information necessitates a varied approach to visuals, making it essential to find a balance that benefits the entire class.

Furthermore, the teacher highlights the initial appeal of visual aids and the subsequent hurdle of maintaining students' sustained engagement throughout the lesson. While visuals can captivate attention at the outset, maintaining interest and active involvement becomes a demanding endeavor. The challenge lies not only in selecting the right visuals but also in leveraging them effectively to keep students engaged, fostering participation, and facilitating an enriched learning experience.

Numerous studies emphasize the complexities involved in utilizing visual aids effectively in education. For instance, researchers like Mayer and Moreno (2019) have extensively explored the cognitive theory of multimedia learning, highlighting the importance of congruence between visuals and instructional content to facilitate better

understanding and learning outcomes. They emphasize the necessity of relevant visuals that align with the curriculum and cater to diverse learning styles.

Furthermore, scholars such as Sweller, Ayres, and Kalyuga (2021) analyzed the concept of cognitive load theory, explaining how incorporating visuals can either enhance or overload students' cognitive capacities. They assert that while visuals can be powerful tools for learning, an overload of information or irrelevant visuals can impede comprehension, especially for students with varying cognitive abilities. Additionally, authors like Hattie (2019) underscore the significance of student engagement in learning. They stress that sustained engagement is crucial for effective learning outcomes and that merely presenting visuals does not guarantee continued interest or active participation and therefore pose as challenges on the use of visual learning aids. Strategies to maintain engagement, such as interactive activities, discussions, and incorporating real-life applications of visual content, are deemed vital.

#### **4.6.2 Impact of the challenges and mitigating strategies**

The second interview question for teachers was:

**Q2:** How do these challenges of incorporating visual learning aids/resources in your teaching of reading and writing skills for secondary school students impact the learning process for students, and what strategies have you employed to overcome or mitigate these obstacles?"

The response for the teachers was as follows:

***Teacher 3:** "Incorporating visual learning aids and resources in teaching methods can significantly impact the reading and writing skills of secondary school students. While visuals can enhance comprehension and engagement, over-reliance on them might inadvertently impact traditional literacy skills development. The challenges arising from visual aids can affect reading skills as*

*students may become accustomed to extracting information primarily from images rather than textual sources. Consequently, their ability to comprehend and analyze written material might diminish if not balanced with sufficient exposure to text-based content. Similarly, writing skills might be affected as students might struggle with expressing their ideas coherently through written words if they're more inclined towards visual learning. Relying solely on visual aids might hinder the development of critical writing skills, including articulation, structuring arguments, and conveying complex thoughts through written text.*

*To mitigate these challenges, I've employed several strategies in my teaching approach. Firstly, I integrate visual aids purposefully and selectively, ensuring they complement rather than replace textual information. By using visuals as supplementary tools to reinforce concepts and stimulate interest, I aim to strike a balance between visual and text-based learning. Secondly, I implement activities that require students to translate visual information into written form. For instance, after analyzing an image or diagram, students are tasked with writing explanations, summaries, or essays based on what they've gathered visually. This helps reinforce their comprehension and writing skills while bridging the gap between visual interpretation and written expression.*

*Moreover, I encourage diverse modes of learning within the classroom. Alongside visual aids, I incorporate interactive discussions, reading exercises, and writing assignments that cater to various learning styles. By providing a well-rounded educational experience, I aim to support the development of both visual literacy and traditional reading and writing skills. Lastly, I offer guidance and feedback tailored to individual students, recognizing their strengths and weaknesses in both visual and textual learning. This personalized approach assists in addressing specific challenges students may face in their literacy development, ensuring they receive support in areas where they require improvement”.*

This teacher's response reflects an understanding of the potential impacts of incorporating visual learning aids on the reading and writing skills of secondary school students. They acknowledge the benefits of visual aids in enhancing comprehension and engagement but are also mindful of the potential pitfalls of over-reliance on visual aids at the expense of traditional literacy skills. The teacher rightly points out that excessive dependence on visuals might lead students to rely more on images for information, potentially diminishing their ability to comprehend and analyze textual

material. This could negatively impact their reading skills, affecting their capacity to extract meaning, interpret, and critically evaluate written content.

Similarly, the teacher notes that a heavy reliance on visual aids might hinder the development of students' writing skills. Students accustomed to visual learning might find it challenging to articulate their ideas effectively through written expression, impacting their ability to structure arguments, convey complex thoughts, and demonstrate critical thinking skills in written form. To address these challenges, the teacher employs a well-thought-out approach. They purposefully integrate visual aids to supplement textual information, ensuring a balance between visual and text-based learning. Additionally, by engaging students in activities that require translating visual information into written form, the teacher bridges the gap between visual interpretation and written expression, reinforcing both comprehension and writing skills. Furthermore, the teacher adopts a diversified teaching approach, encompassing various modes of learning beyond visuals, such as interactive discussions, reading exercises, and writing assignments tailored to different learning styles. This holistic approach aims to support the development of both visual literacy and traditional reading and writing skills.

The implication of this approach is that an intentional and balanced integration of visual aids within a mixed teaching methodology can mitigate the potential drawbacks while leveraging the benefits of visuals. By ensuring a harmony between visual and textual learning, providing diverse learning experiences, and offering personalized guidance, the teacher strives to cultivate well-rounded literacy skills that encompass both visual and traditional forms of comprehension and expression.

Several studies have explored the relationship between visual aids and literacy skills. For instance, research by Guzzetti and Bang (2011) highlighted that while visual aids can enhance comprehension and engagement, an overemphasis on visuals might lead to reduced attention to textual information, potentially impacting students' reading skills. This finding resonates with the concern raised by the teacher 3 regarding students' reliance on images for information.

Moreover, studies exploring multimodal learning (using multiple modes of communication such as visuals, text, audio, etc.) in education, like those conducted by Dabbagh and Kitsantas (2012), emphasize the importance of integrating various modes of learning to address diverse learning preferences. These studies suggest that employing activities that encourage students to translate visual information into written expression, as mentioned by the teacher, can facilitate deeper understanding and improve both comprehension and writing skills.

The teacher's emphasis on a balanced approach aligns with research advocating for multimodal instruction. Mayer and Pilegard (2014) suggested that integrating visual aids purposefully with textual information can optimize learning outcomes, ensuring that visuals support and supplement textual content rather than replace it entirely. This approach resonates with the teacher's strategy of using visuals as supplementary tools to reinforce concepts while maintaining a balance between visual and text-based learning.

Additionally, personalized guidance and feedback, as mentioned by the teacher, align with research on differentiated instruction. Tomlinson and Allan (2018) emphasize the importance of recognizing students' individual strengths and weaknesses and tailoring

instruction accordingly to address diverse learning needs, thereby supporting literacy development in various forms.

When the second teacher was asked the same question on how challenges of incorporating visual learning aids/resources in his/her teaching methods in reading and writing skills, the impact in the learning process for students, and what strategies employed to overcome or mitigate these obstacles, this was the response;

**Teacher 1:** *“The impact of these aids on the learning process is substantial; however, the challenges are equally significant. Integrating visuals helps students comprehend complex concepts, encourages engagement, and caters to diverse learning styles. Nevertheless, several obstacles hinder the seamless integration of these aids. One major challenge is the availability and access to resources, ranging from technological limitations to inadequate materials. Additionally, ensuring the relevance and appropriateness of visual aids to the curriculum and student needs can be daunting.*

*To overcome these hurdles, I've employed a range of strategies. Firstly, I've adapted to the resources available, utilizing traditional visual aids like whiteboards, posters, and charts alongside digital tools when accessible. Flexibility in adapting materials ensures that the lack of specific resources doesn't impede the learning process. Secondly, I regularly create and customize visuals tailored to the specific learning objectives and students' proficiency levels. This customization ensures relevance and resonance with the curriculum and learners' needs. Moreover, I've actively sought professional development opportunities to enhance my skills in creating and effectively using visual aids, ensuring their maximum impact on learning outcomes. Lastly, fostering collaboration among colleagues and leveraging community resources has proven invaluable in acquiring additional visual materials and technology.”*

From this interview, the teacher acknowledges the significant impact of visual aids on students' learning processes, recognizing their ability to enhance comprehension, engagement, and accommodate different learning styles. However, they highlight the considerable challenges associated with seamlessly integrating these aids. The challenges primarily revolve around limitations in accessing resources, encompassing technological constraints and inadequate materials, as well as the daunting task of

ensuring the relevance of visual aids to both the curriculum and the diverse needs of students.

To overcome these obstacles, the teacher has adopted various strategies. They have demonstrated adaptability by utilizing available resources, combining traditional tools like whiteboards, posters, and charts with digital technology when possible. This adaptability ensures that the absence of specific resources doesn't hinder the learning experience. Additionally, the teacher emphasizes the importance of creating and customizing visuals tailored to specific learning goals and students' proficiency levels, ensuring alignment with the curriculum and catering to learners' needs. Seeking continuous professional development to improve skills in creating and effectively using visual aids is another crucial strategy mentioned. Lastly, the teacher values collaboration with colleagues and community resources to acquire additional materials and technology, highlighting the significance of networking and resource-sharing in addressing these challenges.

A study conducted by Mayer and Moreno (2013) demonstrated that incorporating relevant visuals alongside text led to improved understanding and retention of information among students compared to text-only presentations. This aligns with the notion that visuals help students process information more efficiently by complementing verbal instructions with graphic representations. Moreover, a meta-analysis by Hattie (2009) emphasized the significance of visual learning aids, indicating that strategies incorporating visuals into teaching have a moderate to high impact on student achievement. This analysis encompassed various types of visual aids, including diagrams, charts, and videos, emphasizing their effectiveness across different subjects

and age groups. The findings suggested that visuals not only aid in comprehension but also contribute to deeper conceptual understanding and critical thinking skills.

Additionally, studies by Rose and Fernlund (2017) have explored the benefits of utilizing technology-based visual aids in literacy instruction. They found that integrating multimedia resources, such as interactive whiteboards or educational software, not only increased student engagement but also improved reading and writing skills. The interactive nature of these tools allowed for a more personalized and dynamic learning experience, catering to diverse learning styles among secondary school students.

However, while these studies underscore the benefits of visual aids, they also highlight the importance of thoughtful integration and alignment with instructional goals. Research by Hobbs (2019) cautioned that the effectiveness of visual aids depends on how they are used within the context of the curriculum. Simply incorporating visuals without considering their relevance or instructional purpose may not yield the desired learning outcomes.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of the whole study through the discussion of the study findings, the implications of the findings interpreted in the light of the available evidence and conclusions derived from the interpretation. Furthermore, thesis contribution, some recommendations and areas warranting further investigation are highlighted.

#### **5.2 Summary of the Findings**

##### **5.2.1 Availability of Visual Learning Aids Teaching Strategy on Reading and writing**

The first objective focused on assessing the availability and adequacy of visual learning aids used for teaching English Language. The investigation revealed that while some aids like pictorials, charts, and posters were readily available and deemed adequate, others such as real objects, textbooks, and flashcards faced shortages. Pictorials and charts were highlighted as valuable tools, simplifying complex language elements and aiding students' comprehension. Conversely, insufficient real objects hindered experiential learning, while shortages in textbooks and flashcards limited independent study and vocabulary reinforcement. These findings underscore the significance of a balanced provision of visual learning aids to ensure a more comprehensive and effective language learning environment.

Furthermore, the observations align with the sentiments expressed by teachers in their interview regarding the availability of visual aids. While acknowledging the importance of available resources like pictorials, charts, and posters in aiding students'

understanding, they highlighted notable shortages in other crucial aids, emphasizing the limitations these shortages pose in providing a well-rounded learning experience. The deficiencies in real objects, textbooks, and flashcards restrict hands-on learning experiences and impede students' opportunities for in-depth study and vocabulary enhancement. This comprehensive overview highlights the need for a more holistic approach to resource allocation in language education, echoing the findings of similar studies that have revealed disparities in resource availability impacting language instruction in various contexts.

### **5.2.2 The usage of visual learning aids in teaching and learning of reading and writing skills in secondary schools**

The study's second objective focused on assessing the usage of visual learning aids in teaching reading and writing skills in secondary schools. It revealed that among the visual learning aids observed, pictorials, charts, textbooks, and posters were the most frequently utilized resources. These traditional aids were readily available and often integrated into lesson plans, providing comprehensive information and serving as quick references for various language elements within the English curriculum. However, the less frequent use of real objects and flashcards suggested potential limitations in diversifying teaching strategies. While real objects offer tangible, hands-on experiences that enhance relatability for visual learners, flashcards contribute significantly to memory retention. The observation highlights the potential benefits of a more balanced utilization of diverse visual aids, suggesting that integrating real objects and flashcards more frequently could create a dynamic learning environment accommodating various learning styles and enhancing the overall teaching approach in language education.

Moreover, the teacher's interview response further illuminated students' preferences regarding visual learning aids. Students exhibited strong inclinations towards pictorials, charts, textbooks, and posters due to their distinct attributes. Pictorials were favored for their ability to make complex information visually stimulating and memorable, aiding students' comprehension and retention of language-related topics. Similarly, students valued charts for their organized display of information, contributing to simplified learning experiences. Textbooks were relied upon as comprehensive resources for refining reading and writing skills, showcasing students' trust in their detailed explanations and exercises. Additionally, the interest in posters highlighted their role as visual cues, aiding memory retention and reinforcing literacy strategies. Although less frequently used, flashcards and real objects had notable impacts on student engagement, emphasizing their effectiveness in aiding memory recall and providing hands-on learning experiences that some students found highly engaging in understanding language concepts.

### **5.2.3 Effect of Visual Learning Aids Students to Learning of Reading and writing**

The third objective of the study aimed to investigate the impact of using visual learning aids on students' achievement in reading and writing skills within rural secondary schools in Uasin Gishu. The study employed an experimental design where students were divided into experimental and control groups. The experimental group received instruction in reading and writing using visual aids for one week, while the control group was taught through conventional methods. Both groups underwent pre-tests and post-tests, with the results indicating that initially, both cohorts showed similar performance levels in reading and writing skills. However, after the intervention, the experimental group showed a higher mean score increase compared to the control group. The mean difference between the post-test scores of the experimental and control

groups was 5.23, suggesting that the use of visual aids contributed positively to the students' improvement in reading and writing skills. The findings imply that while the duration of exposure to visual aids was short (one week), it still resulted in a noticeable positive impact on students' academic performance in these language skills.

The results revealed that the use of visual aids, even within a limited timeframe, significantly improved students' performance in reading and writing. The mean difference between the experimental and control groups' post-test scores indicated a clear advantage for the group exposed to visual aids during instruction. This suggests that visual aids have a notable effect on enhancing students' learning outcomes in reading and writing, contributing to better comprehension, memory retention, and the generation of ideas. While the difference observed was significant, the study also acknowledged that a longer duration of exposure to visual aids could potentially yield even greater improvements in academic performance.

Furthermore, the statistical analysis using paired sample t-tests confirmed the significance of the difference in scores between the experimental and control groups post-intervention. The rejection of the null hypothesis indicates that the use of visual aids had a discernible effect on students' reading and writing achievements. The outcomes align with similar studies that have explored the impact of interventions or specific teaching methods on academic performance, underlining the significance of employing visual aids in enhancing students' learning experiences and outcomes in language skills like reading and writing.

#### **5.2.4 Challenges encountered by teachers and learners in using visual learning aids resources.**

The study's fourth objective aimed to uncover challenges faced by teachers and learners in utilizing visual learning aids for teaching reading and writing skills. The teachers' responses unveiled several hurdles hindering the effective incorporation of visual aids in education. The primary challenge stemmed from the availability and adequacy of resources, encompassing difficulties in accessing updated, relevant, and high-quality visuals that resonate with diverse topics and teaching methodologies. Technological advancements posed an additional challenge, demanding continuous adaptation to evolving tools and skills. Technical issues such as unreliable internet or malfunctioning equipment further disrupted the seamless integration of visual aids into lessons. Moreover, accommodating diverse learning styles while ensuring inclusivity presented a persistent challenge, as visual aids might suit some students but not all, necessitating a delicate balance to cater to various learning preferences.

Teachers acknowledged the complex nature of integrating visual aids in secondary school education, acknowledging the varied learning styles and needs of students. Their responses illuminated the daunting task of selecting visuals that engage and resonate universally among students while catering to their diverse learning preferences. Furthermore, they highlighted the initial appeal of visual aids and the subsequent challenge of maintaining sustained engagement throughout lessons. While visuals could capture attention at the outset, sustaining interest and active involvement remained a demanding endeavor. The need to select the right visuals and leverage them effectively to maintain engagement and foster enriched learning experiences emerged as a crucial consideration in incorporating visual aids effectively. When addressing the impact of these challenges and the strategies employed to mitigate them, teachers

recognized the potential drawbacks of excessive reliance on visual aids on students' reading and writing skills. Overdependence on visuals might diminish students' ability to comprehend textual material and articulate ideas effectively in written form. To address these challenges, teachers adopted a balanced approach, purposefully integrating visual aids to supplement textual information while engaging students in activities that bridge visual interpretation and written expression. They diversified teaching methods beyond visuals, encompassing interactive discussions, reading exercises, and writing assignments tailored to different learning styles, aiming to support the development of both visual literacy and traditional reading and writing skills.

### **5.3 Conclusions of the Study**

Based on the objectives outlined in the study regarding the availability, usage, impact, and challenges of visual learning aids in teaching reading and writing skills, several conclusions can be drawn:

1. From the first objective, it can be concluded that while certain visual learning aids like pictorials, charts, and posters are readily available and considered adequate, there are shortages in other crucial resources such as real objects, textbooks, and flashcards. This emphasizes the need for a balanced provision of visual aids to ensure a more comprehensive and effective language learning environment.
2. The study's second objective revealed that pictorials, charts, textbooks, and posters are frequently utilized in teaching reading and writing skills. However, the less frequent use of real objects and flashcards suggests potential limitations in diversifying teaching strategies. Students have demonstrated strong

inclinations towards traditional visual aids due to their distinct attributes, emphasizing the need for a more balanced utilization of diverse visual aids to accommodate various learning styles effectively.

3. The third objective highlighted the positive impact of using visual learning aids on students' reading and writing skills. The experimental design showed that exposure to visual aids for a relatively short period resulted in a significant improvement in students' academic performance. This implies that even a brief duration of exposure to visual aids can positively affect students' learning outcomes in language skills.
4. The fourth objective identified several challenges faced by teachers and learners in using visual learning aids. Availability and adequacy of resources, technological constraints, and catering to diverse learning styles emerged as primary hurdles. However, strategies such as balanced integration of visual aids, engagement activities, and diversification of teaching methods were employed to mitigate these challenges, emphasizing the need for adaptability and a well-rounded approach in incorporating visual aids effectively.

#### **5.4 Recommendations of the Study**

The following are the recommendations of this study based on the research findings

Based on the findings, the study, proposed the following several recommendations:

1. Schools and educational institutions should prioritize the provision of a diverse range of visual learning aids, including real objects, textbooks, and flashcards, in addition to commonly used materials like pictorials, charts, and posters and other digital visual learning aids. Efforts should be made to ensure adequate

quantities and varieties of these resources to create a more inclusive and comprehensive learning environment. This could involve budgetary allocations, resource sharing between schools, and partnerships with stakeholders and corporate organizations like the Equity Bank to enhance access to a wider array of visual aids.

2. Teachers should receive continuous capacity training and professional development opportunities focused on effectively integrating and utilizing visual aids in teaching practices. This training should encompass various aspects, including selecting relevant visuals, leveraging technology for educational purposes, and catering to diverse learning styles. By enhancing teachers' skills in creating and implementing visual aids, schools can facilitate more engaging and effective learning experiences for students. The trainings could be done through institutions like the KICD and/or development partners like ICTA.
3. Educators should adopt a balanced approach to incorporate visual aids into their teaching methodologies. While recognizing the benefits of traditional visual aids, teachers should explore and employ less frequently used resources like real objects and flashcards to diversify teaching strategies. Creating lesson plans that integrate various visual aids in alignment with different learning styles can enhance student engagement and cater to the various needs of learners.
4. Teachers should develop adaptive teaching strategies that combine visual aids with other instructional methods beyond visuals. By integrating interactive discussions, reading exercises, and writing assignments tailored to different learning styles, educators can ensure a holistic approach to language education.

This balanced strategy aims to support the development of both visual literacy and traditional reading and writing skills among students.

### **5.5 Suggestions for Further Research**

1. There is a need to investigate the effectiveness of integrating emerging digital visual learning tools, such as virtual reality (VR) or augmented reality (AR), in teaching reading and writing skills compared to traditional visual aids.
2. There is a need to examine the relationship between students' preferred learning styles and their responsiveness to different types of visual aids in language education, focusing on tailoring visual aids to match diverse learning preferences.
3. There is a need to investigate the potential correlation between socio-economic factors, resource availability in schools, and the utilization of visual learning aids, aiming to address disparities and improve access to these resources for all students.
4. There is a need to conduct studies evaluating the effectiveness of multi-sensory learning approaches integrating visual aids with auditory or kinesthetic elements in teaching reading and writing skills.

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## APPENDICES

### **Appendix I: Letter to the Teachers of English in Secondary School.**

Dear Sir/Madam,

#### **RE:REQUEST FOR YOUR PARTICIPATION IN THE STUDY**

I am a post graduate student at Moi University, Department of Curriculum Instruction and Education Media pursuing a Master of Philosophy Degree in Educational Communication and Technology .At the moment, am carrying out a research on the effectiveness of Visual Learning Aids in enhancing reading and writing among form ones at Cheplelaibei North Secondary School, Soy Uasin Gishu,Kenya.

The interview schedule is intended to obtain information on the effectiveness of using Visual Learning Aids in enhancing reading and writing skills in Cheplelaibei North secondary school. I kindly request you to provide some information on the availability, the use, the effectiveness and the challenges faced when using Visual Learning Aids.

Any information will be treated with confidentiality .Your cooperation will be highly appreciated.

Yours faithfully

Gladys Jepkorir

Researcher.

## Appendix II: The Interview Schedule for Teachers

1.
  - a. Do you have Visual Learning Aids for your students? If yes,
  - b. What type of Visual Learning Aids are they?
  - c. How do these Visual Learning Aids influence your student's performance in English? (Grammar, oral skills, writing, vocabulary and comprehension)
2.
  - a. What kinds of Visual Learning Aids do they enjoy using in reading?
  - b. Are they available in your school?
  - c. How often do you use them in a week?
  - d. How would you rate them in terms of how often they engage in reading using Visual Learning Aids ? Below average, average or above average. Why?
3.
  - a. What types of reading activities are your students exposed to using Visual Learning Aids ?
  - b. How many times in a week do you set aside for these types of reading?
  - c. Where do they read from?
4. In your experience, what specific challenges have you encountered when incorporating visual learning aids/resources in your teaching methods for secondary school students?
5. How do these challenges of incorporating visual learning aids/resources in your teaching methods reading and writing skills for secondary school students impact the learning process for students, and what strategies have you employed to overcome or mitigate these obstacles?"

### Appendix III: Document Analysis

#### Test Scores on Language Skills

##### Tests Scores from class A

STUDENT	GRAMMAR	ORAL SKILLS	WRITING	COMPREHENSION	%
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

##### Tests Scores from class B

STUDENT	GRAMMAR	ORAL SKILLS	WRITING	COMPREHENSION	%
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					



## **Appendix V: Observation Checklist: Visual Learning Aids Availability and Frequency**


This was used to assess the usage of the visual aids in class .


The researcher will visit the classes.

### **CLASS A.**

<b>VL aids</b>	<b>Available</b>	<b>Frequency</b>	<b>Mark/5</b>	<b>%</b>
<b>Pictorials</b>				
<b>Charts</b>				
<b>Real objects</b>				
<b>Text books</b>				
<b>Flash cards</b>				
<b>Posters</b>				


### Appendix VI: Research Authorization Letters

  
**REPUBLIC OF KENYA**

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

Ref No: **841417** Date of Issue: **30/June/2023**


**RESEARCH LICENSE**




**This is to Certify that Miss.. Gladys Jepkorir of Moi University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Uasin-Gishu on the topic: Effectiveness Of Selected Visual Learning Aids in Enhancing Reading And Writing Skills Among Secondary School Students In Kenya for the period ending : 30/June/2024.**

License No: **NACOSTI/P/23/27017**

**841417**  
Applicant Identification Number

  
Director General  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION**

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Fax No. (053) 43047

P.O. Box 3900  
Eldoret, Kenya

REF: EDU/PGCM/1013/18

DATE: 2<sup>nd</sup> June, 2023

**THE EXECUTIVE SECRETARY**

National Council for Science and Technology  
Box 30623-00100

**NAIROBI**

Dear Sir/Madam,

**RE: RESEARCH PERMIT IN RESPECT OF GLADYS JEPKORIR -  
EDU/PGCM/1013/18**

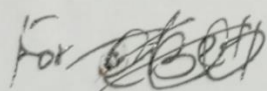
The above named is a 2<sup>nd</sup> year Masters Student at Moi University, School of Education, Department of Curriculum Instruction and Educational Media.

It is required of her Masters studies to conduct a research project and produce a research report. Her research topic is entitled:

**“Effectiveness of Selected Visual Learning Aids in Enhancing Reading and Writing Skills among Secondary School Students in Kenya.”**

Any assistance given to enable her conduct research successfully will be highly appreciated.

Yours faithfully,

For 

**PROF. ANNE S. KISILU  
DEAN, SCHOOL OF EDUCATION**



(ISO 9001:2015 Certified Institution)

**TEACHERS SERVICE COMMISSION**

Telegrams  
Telephone 020-8011972

When replying please  
quote  
Ref. N°: TSC/677418/6  
and date



TSC COUNTY DIRECTOR  
UASIN GISHU COUNTY  
P. O. BOX 366-30100  
ELDORET

19<sup>th</sup> June, 2023

Gladys Jepkorir  
TSC/677418

**RE: PERMISSION TO CARRY OUT EDUCATIONAL RESEARCH**

Reference is made to yours dated 15.6.23 requesting to carry out educational research.

Permission is hereby granted with effect from 19.6.2023 – 12.8.2023 at Cheplelaibei North Secondary School.

I wish you the best in your research work.

**B.C. KIPTOO**  
**FOR: TSC SOY COUNTY DIRECTOR - UASIN GISHU**  
**TEACHERS SERVICE COMMISSION**

HON/sjc



## Appendix VII: Plagiarism Awareness Certificate



SR822

ISO 9001:2019 Certified Institution

### THESIS WRITING COURSE

### *PLAGIARISM AWARENESS CERTIFICATE*

This certificate is awarded to

**GLADYS JEPKORIR**

**EDU/PGCM/1013/18**

In recognition for passing the University's plagiarism

Awareness test for Thesis entitled: **EFFECTIVENESS OF VISUAL LEARNING AIDS IN ENHANCING READING AND WRITING SKILLS AMONG SECONDARY SCHOOL STUDENTS IN UASIN GISHU COUNTY, KENYA** with similarity index of 25% and striving to maintain academic integrity.

Word count:20450

Awarded by

Prof. Anne Syomwene Kisilu

CERM-ESA Project Leader Date: 02/04//2025