

The Effectiveness of Visual Learning Aids on Reading and Writing Skills among Form One Students in Secondary Schools in Kenya

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ABSTRACT

Education is an essential human right which plays a role in the development of a country's economy. Students should be empowered to thrive and get good grades in secondary schools. There is however, concern on the quality of education offered and academic performance of students in KCSE examinations. The purpose of study was to investigate the effectiveness of Visual Learning Aids on reading and writing among form one students in secondary schools in Kenya. The objective of this study was to analyze the effectiveness of Visual Learning Aids on the reading and writing skills among form one students in Kenya. The study was guided by dual coding theory and utilized quasi experimental research design. The target population consisted of all form one students from Cheplelaibei North Secondary School which also formed the sample size of the study. The census technique was used to select all the 60 form one students. This sample was divided into two groups: 30 students formed the control group while the other half formed the experimental group. The study used observation, interviews and document analysis to collect quantitative and qualitative data from form one students. Qualitative data was analyzed thematically by reporting and interpreting the responses of the respondents. Quantitative data was analyzed by the use of both descriptive statistics and SPSS version 23. 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 found out 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. Despite the identified challenges faced by teachers and learners in employing visual aids, 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.

Keywords: Visual learning aids, Reading and writing skills.

INTRODUCTION TO THE STUDY

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 of 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, teach and extant 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, student's 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. Form 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).

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

Visual Learning Aids

Visual aids are apparatus used by students Laurillard (2013), to help understand or make a lesson understood easily. In the education system visual aids are essential. 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.
- b. Pictorial aids: photographs, charts, pictures, diagrams, posters, cartoons, graphs, comics
- c. Three-dimensional aids.
- d. Projected aids which include film-strips and slides, and slides projector.
- e. Laboratory equipment, chemical and apparatus.
- f. Books, Flash cards, Globes, Maps, Symbols
- g. Real objects: specimen, dioramas, puppets,
- h. Field trips, Exhibitions, Demonstrations, Display board
- i. Projected motion media: movies, tv, video (vcd, dvd, vtr), computers and also the like.
- j. Study tour media: learning directly onto the object or study places like museums, temples, etc.

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

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. 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. Punzalan (2018) evaluated the impact of the visual arts on academic performance of students. 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.

A study by chudung (2020) on the teachers' use of visual aids in enhancing teaching and learning process in public primary schools in Barkin-Ladi, Nigeria, suggested that the government should help teachers in primary schools by providing enough visual aids since all the schools under the study benefited from the use of various aids.

According to Hamad (2023) on the impacts of visual aids in promoting the learning processes in Pakistan *the African Journal of Education and practice vol 9*, issue 1, the findings revealed the existence of a contextual and methodological gap relating to the impacts of visual aids in promoting the learning processes in schools. Thus the conclusion that employing visual aids in the classroom as a kind of pedagogical support helps to improve the atmosphere of learning there .

The current study focuses on the effectiveness of Visual Learning Aids in enhancing reading and writing among form one students in the Kenyan context. Secondly, the above studies targeted audio-Visual Learning Aids, primary schools set up and a different region altogether which is a deviation from the current study. These studies fail to address the variables in the current study.

METHODOLOGY

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.

EFFECT OF VISUAL LEARNING AIDS IN READING AND WRITING.

The objective of this study was to investigate the effect of Visual Learning Aids on reading and writing among students in public secondary schools in Kenya. 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 given for both groups, 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 1.

Table 1: Mean Marks of Students in Pre-Test and Post Test

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

Table 1 show that students in the control cohort had a mean score of 44.6789 with a standard error of 82.226 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 post-test was 11.68 for experimental group while that for the control group was 6.66. A mean difference of 5.57 was obtained in post-test 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 post-test 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 5.23% 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 Bassar's (2019) explored the cognitive effects of visual aids on learning outcomes. Bassar's study highlighted the positive influence of visual aids on students' academic performance. Bassar 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.

CONCLUSIONS AND RECOMMENDATIONS

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 schools and institutions to ensure a balanced provision of visual aids for 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. Teachers should therefore receive continuous training and professional development opportunities focused on effectively integrating and utilizing visual aids in teaching practices.

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. Educators should adopt a balanced approach to incorporate visual aids into their teaching methodologies.

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