# Influence of Videos on Students' Achievement in English Grammar: A Case of Secondary Schools in Starehe Sub-County, Nairobi County, Kenya

**Dr. Judy Njoki Makira**
English Language Education, Kenyatta University, Nairobi, Kenya
**John Kimemia**
Associate Professor, Department of Educational Communication and Technology
Kenyatta University, Nairobi, Kenya
**Samson Ondigi**
Associate Professor, Department of Educational Communication and Technology
Kenyatta University, Nairobi, Kenya

*Abstract*
*In the Kenyan Secondary School Curriculum, English is the language of instruction, and also one of the compulsory examinable subjects. English grammar, specifically, covers a wide area in the English syllabus, as it is present in all the four basic language skills of listening, speaking, reading, writing and vocabulary. The purpose of this study was to examine the influence of videos on students' achievement in English grammar. To achieve this, the study examined whether video based instruction that was developed using David Jonassen's constructivist principles could have any impact on students' achievement. This study utilized a mixed method design, specifically the Convergent / parallel approach. Videos were integrated in the teaching of grammar in the treatment group whereas students in the control group learnt the same topics using conventional methods. Quantitative data were analyzed using t-tests. The statistical significance of the results was examined at the confidence level of 95%. Qualitative data analysis considered the findings from observation and inferences from the opinions of the respondents in the interviews. Findings revealed that videos utilized on the basis of Jonassen' characteristics of meaningful learning had a positive influence on the performance in grammar. In addition, the study found out that teaching and learning grammar with videos was interesting, engaging, interactive and rewarding.*

*Keywords: Influence, videos, achievement, english grammar*

## 1. Introduction

It is expected that the recent introduction of technology into mainstreaming schooling will transform and penetrate learning and teaching in the educational curriculum. In Kenya, the use of electronic resources in teaching and learning can be traced by looking at the evolution of the Kenyan education system, which has gone through various reforms since independence. All the major strategic developments and policies in the education sector have been based on successive committees, working parties, forces and commissions.

The laptop initiative, now called the Digital Learning Programme (DLP), is one of the current government's initiatives to ensure that Kenyan learners are equipped with skills, knowledge, values and attitude that make them compete effectively in the global arena. The initiative first featured in the Jubilee manifesto during the run up to the 2012 general elections. The pledge was to equip every standard one pupil with a laptop as part of the strategic actions to integrate ICT in education (Kenya Institute of Curriculum Development, 2014)1. The bases of these strategies are embedded in various policy documents including the Kenya Vision 2030, the National ICT Strategy and the National ICT Master Plan.

In response to the rising tide of the use of ICT in education sector, all over the countries in the world, it brings into concern in particular, the awareness, the easy access of the facility to the teaching and learning of English. In Kenyan secondary school curriculum, English is the language of instruction in schools and higher learning institutions. English grammar, particularly, is a central element in the language system as learners need it for the development of other skills. According to Gathumbi and

Masembe (2005: 84)2, "Grammar is the most distinctive aspect of language as it has features that are considered unique to language."

Despite the critical role played by English language in Kenya, there have been persistent complaints about decreasing standards of both spoken and written English (Okwara et al, 2009)3. Annual Reports released by the Kenya National Examination Council (KNEC) show that the performance is below average (KNEC, 2008, 2011, 2017)4. Research in language teaching has shown that there is a relationship between the use of resources in teaching of English language and the learners' ability to perform using English. There is evidence that use of e-resources in learning may provide richer contexts for language learning, which may enhance the acquisition of communicative competence (CC). According to Nunan (Cited in Visoi, 2010)5, exposure to several modes of presentations can often provide learners with new expression, structures and vocabulary which will help revise linguistic and cultural patterns and prepare them for authentic cultural situations. The use of e-resources in curriculum delivery can be one way to achieve this contextualized instruction. Among the numerous e- resources presently available, videos can be used for English teaching. Video is a mode of delivery for interactive communication. It has capacity to show material through visual and auditory, forming a multi-sensory learning environment (Hibbert, 2014)6, which in turn can enhance contextualized teaching and learning. Against this background, this study sought to examine the influence of videos on achievement in the English grammar among secondary school students.

## 2. Teaching and Learning of Grammar

Grammar is the set of structural rules without which learners' language development is severely constrained. In the words of Thornbury (1999: 13)7, "Grammar is the description of the rules for forming sentences, including an account of the meanings that these forms convey." It is the base of English language as it cuts across all other language skills, that is, reading, writing, speaking and vocabulary. Grammar can be taught either inductively or deductively. Grammar translation is the first method that was used for grammar teaching and learning (Khan,2007)8. In this method, grammar is taught deductively by the presentation of grammar rules, which are then practiced through translation exercises (Khan, 2007)8. The method entailed the use of mother tongue to elicit meaning in the target language. Then there was the direct method, also called the natural method, which refrains from using the learners' native language. Teaching is done entirely in the target language. Grammar rules are avoided and there is emphasis on proper pronunciation. The audio-lingual method (ALM) arose from the need for foreign language proficiency in listening and speaking during the Second World War. Drilling and repetition are core elements of instruction. Learners listen to recorded conversations repeatedly and then imitate them. Critics of this approach, however, argued that this drilling did not help the learners in learning a new language. A major shift occurred in the emphasis of skill, that is, from reading and writing to speaking and a new approach evolved called the communicative language teaching (CLT) approach. This approach emphasized on skill development and is grounded on the theory of language for communication. Hymes (1972)9 says that the goal of language teaching is to develop communicative competence. This contrasted with Chomsky's view that linguistic theory is concerned primarily with an ideal speaker-listener in a completely homogeneous speech community (Chomsky, 1965: 3)10.

## 3. Teaching Grammar in Context

Context-based grammar has a crucial place for better learning. According to Larsen-Freeman (2009)11, the most extensively practiced traditional approach to grammar instruction has been the 3 Ps- Present, practice and produce. In the first P, the teacher presents the target grammar structure through the use of a meaningful context to show how grammar is used. Learners are then given an opportunity to practice the structure. This can be through gap-fill exercises, sentence transformations, picture-words matching or sentence formations. Finally, learners produce the new grammar structure in a meaningful way. Activities for facilitating this include role plays, debates, interviews and narration. It has been advocated that teaching grammar in a contextualized manner is more beneficial than abstracting structures from their meaning and use. Literature review on grammar instruction shows that a balance needs to be established between a meaning and a form based instruction to aid students communicatively use language (Larsen- Freeman, 2001)12. This can be done by using contextualized form of teaching grammar. In criticizing the teaching of grammar through isolated sentences, Nunan (1998)13says that often in textbooks, grammar is presented out of context where learners are given isolated sentences which they are expected to internalize through repetitive exercises. Nunan adds that such exercises only provide learners with formal mastery of rules. Learners are therefore not able to see the relationship between form, meaning and use which can only be achieved if they are given opportunities to explore grammar in context.

## 4. Assessing Grammar

In the ancient approach in assessing grammar, knowledge of grammar is based on accurate comprehension and production and thereafter investigated through the four skills. Testing is normally done through decontextualization, discrete-point items that include sentence unscrambling, fill-in-the-blanks, sentence completion error correction, elicited imation, picture description, sentence combining, judging grammatical correctness and cloze passages. According to Freeman-Larsen (2009)11those formats test grammar knowledge but they do not investigate if test takers can use grammar effectively in real life speaking and writing.

Language as a second language (L2) testers continue to acknowledge the importance of grammar in assessing communicative language ability. It is believed that grammar plays a fundamental role in predicting the ability to communicate precisely and effectively in the L2 and from the potential it has for providing learners and teachers with information on the grammar needed to improve (Purpura, 2013)14. According to Purpura (2013)14, several L2 testers have conceptualized L2 proficiency in different ways which have been used as a basis for constructing grammar assessments. Lado's (1961)15 view of L2 proficiency was operationalized in terms of a skills-and-elements approach to assessment. This approach viewed L2 knowledge in terms of language elements (knowledge of phonology, structures, lexis) measured in the context of the language skills of reading, writing, speaking and listening. The individual elements were taken to be the principle building blocks of L2 proficiency.

Another conceptualization of L2 proficiency is by Bachman and Palmer (1996)16 who depicted language use in terms of an interaction between the individual characteristics of the language users on one hand and the context of the language on the other. One of the most recent depictions of L2 proficiency was proposed by Purpura (2004), cited in Purpura, (2013)14. L2 proficiency in Purpura's view acknowledges the research on the connections between grammatical forms and their associated semantic meanings. He describes language knowledge as the interaction between grammatical knowledge and pragmatic knowledge.

## 5. Purpose of the Study

The purpose of this study was to examine the effects of videos on achievement in English grammar among secondary school students. This study was founded on constructivism that is meant to engage learners in authentic, active and pertinent learning.

## 6. Hypothesis and Qualitative Research Question of the Study

The following hypothesis was generated for this study:
H0: There is no statistically significant difference in achievement in grammar of students who are exposed to videos and those not exposed
The study was also guided by the following question:
How does the use of video during instruction influence the teaching and learning of English grammar?

## 7. Theoretical framework

This study was guided by the principles of constructivist theory postulated by David Jonassen. Constructivism is a learning theory that argues that knowledge is gained through personal experience. Constructivists see learning as formation of concepts to represent realism. Further, constructivism posits that interactive activities by learners are better in promoting learning compared to activities where learners are passive (Zhang et al., 2006)17. The principles of constructivism were therefore relevant to this because constructivism is an active and contextualized activity of building knowledge instead of acquiring it. Specifically, David Jonassen's principles (Jonassen, 2000)18 were relevant to this study. First, the study was grounded on the premises of enhancing context-based teaching and learning of English grammar through the use of videos. Interactive video in e-learning system allows proactive and random access to video content. Contextualized instruction is anchored on a constructivist theory of teaching and learning. Second, David Jonassen's concept of mindtools (Jonassen, 2000)18 was significant to this study since videos were the mindtools which were expected to engage learners in active, contextual and collaborative learning. Third, Jonassen's characteristics of meaningful learning (Jonassen, 2002)19 were applicable and related to videos- learning support. According to him, meaningful learning is active, constructive, reflective,conversational,collaborative and contextual. These characteristics gave insight on using videos and how they could be utilized in efficient mode of learning and teaching. The study sought to examine if video-based instruction that was developed using Jonassen's characteristics of meaningful learning would have any influence on students' achievement in English grammar.

## 8. Research Design

This study employed a mixed-method research design. The rationale for using a mixed method design was that the quantitative results would generate explanations for relationship between video assisted instruction and the students' performance in English grammar whereas the qualitative data and results would help build a more detailed understanding of what the statistical tests meant, and thus answer the research question

Of the three major approaches to the mixed method design (convergent, explanatory & exploratory) highlighted by Creswell and Clark (2011)21, this study used the convergent approach. The researcher used concurrent timing to implement the quantitative and qualitative strands during the same phase of the research process. The quantitative strand was prioritized more. The two strands were kept independent of each other during analysis and the results were mixed during the overall interpretation. The quantitative data collection employed the quasi experimental design, of the matched comparison, pre-test, post-test, non- randomized, control group design. This best satisfied the study because the students' population already existed and was not be randomly selected, therefore, the next best thing was matching them. The qualitative phase employed a

descriptive survey method to collect data using interviews and observation. The findings from these two phases were linked in the interpretation and discussion section of the findings.

### 8.1. Sample and sampling technique

Stratified sampling was used to select the sample for the study. The study was a quasi experimental design and needed to involve schools with similar demographics. Schools were put in strata in terms of category and academic levels. Matching controlled selection bias. The control group was similar to the treatment group in terms previous year's performance in English, school category, and location. After matching these variables, other influences that might have affected the experiment groups were offset by an equal influence on the control group (Suter, 2006)22. Form two students participated in this study.

### 8.2. Instrumentation

The research instruments for this study were grammar achievement pre-tests and post-tests items, interviews and observation. The achievement tests were designed to investigate the research hypothesis. They utilized the Constructed Response (CR) items types and a dichotomous scoring method.  A common marking scheme was used. The tests were designed on the basis of conceptualizations of grammar proficiency posited by Purpura (2013)14, which are discussed in the introduction phase of this study. Utilizing these conceptualizations, the study designed the tests using Lado's (1961)15 views of L2 proficiency which looks at L2 knowledge in terms of skills-and-elements approach. The construct that was tested by the pre-tests was knowledge of interjections, indefinite pronouns and active/passive voice whereas the post-tests covered future tense, collective pronouns and adverbs. Each of the two tests consisted of 30 discrete grammatical elements. The scores from the correct responses were then aggregated to produce an overall achievement estimate.

Semi structured interviews for students and teachers were used. The interviews revealed insights that numbers could not and they therefore helped to understand the quantitative findings. Through the interviews, data was gathered on the students' learning experiences in the use of videos in learning English. The Teachers' Interview (TI) was used to gather information on the teachers' experiences in the teaching of English grammar. An observation was carried out in all the schools during teaching and learning of English grammar. The researcher, as a non-participant observed two lessons taught using the videos and two using the conventional methods. This was meant to give further insight into how the lessons were conducted. The units of the observation protocol were the content of the lessons, resources, teaching methods, learning activities, the components of the videos and any other observable behaviour of the learners.

### 8.3. Validation of the instruments

To ensure content and construct validity, opinion of experts in English teaching and educational technology was sought regarding whether items in the achievement tests and interview guide represented the elements if the study. Threats to internal and external validity were controlled. The threats identified were history, testing and differential selection (Cook & Campbell 197923, Campell & Stanley, 197124).  They were controlled by utilizing a short time in the experiment, use of different test items in the pre-test and post-test and matching, respectively.

### 8.4. Data Collection procedure

This study sought to examine the influence of videos on performance in English grammar among secondary school students. To test the hypothesis, data were generated from the results of the grammar pre-tests and post- tests. Interviews and observation were used to gather in-depth data on teachers' and students' experiences in the teaching and learning of English grammar. A total of 129 students and four teachers participated in the study. The students were drawn from four secondary schools in Starehe Sub-county, Nairobi County. Out of the 129, 63 were Treatment Group (TG) whereas 66 were Control Group (CG). The four teachers were the regular teachers who were teaching English to the four selected classes at the time of the research. The teachers administered all the tests. The researcher administered the interviews and marked all the scripts. The students were first taught three grammar topics using the conventional teaching methods, after which they were all given pre-tests covering those topics. All the students were then taught three grammar topics, during which, those in the treatment group had videos as resources in addition to the textbooks whereas those in the control classes were taught using the conventional methods. They then all sat for post- tests. The respondents then participated in the interviews and the researcher carried out an observation in all the classes.

### 8.5. Data analysis

Data for this study were both quantitative and qualitative. Quantitative data were generated from the test scores in both the pre-tests and the post-tests Qualitative data were generated from interviews and observation. Quantitative data were analyzed using the t –test. The test was used to determine if there was a significant difference in the performance in grammar of students who are exposed to videos and those not exposed.  For each finding, descriptive statistics were done first followed by the inferential statistics. The statistical significance of the results was examined at the confidence level of 95%.  Qualitative analysis considered the inferences that were made from the opinion of the respondents in the interviews and also findings from the observation. The analysis was presented in tabular, narrative form and actual voices.

## 9. Results

The students in both the treatment and control groups were first taught three grammar topics using the conventional methods, after which they did a pre-test. The pre-test helped in establishing the students' baseline ability.

### 9.1. Pre-test results for the performance in English grammar

The topics covered in the pre-test were adjectives, indefinite pronouns and active-passive voice. The descriptive results of the performance in the pre-tests are presented in table 1:

| Schools | N | Mean (SD) | SE | Min | Max |
|---|---|---|---|---|---|
| TG | 63 | 13.62 ± 6.83a | 0.86 | 1 | 27 |
| CG | 66 | 13.26 ± 6.15a | 0.76 | 3 | 27 |

Table 1: Pre-tests performance in English grammar by control and treatment schools
A *mean value in a similar column denoted by similar letter are not significantly different (p>0.05)*

The results in table 1 showed that TG had a slightly higher score than the CG at 13.62. To examine the significance relationship between the results of the two groups, a t-test was carried out. The findings are presented in table 2:

| | Sample Differences | | | | | T | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Treatment - Control Means | .53968 | 9.11897 | 1.14888 | -1.75690 | 2.83627 | .470 | 62 | .640 |

Table 2: T-test results showing the relationship between pre-test grammar treatment and control mean score
Test at 95% C.I.

The findings in table 2 showed that the scores in the pre-tests in grammar between the treatment and the control groups was not significantly different (P =.640; t=.470; df=62). These findings implied that the control and treatment groups had equal ability at the onset.

### 9.2. Post- test results for the performance in English grammar

All the four schools were taught three more grammar topics. The topics covered were future tense, collective pronouns and adverbs. The TG had the video as an intervention, whereas the CGwas taught using the conventional methods. A grammar post-test was administered to all the participants. Table 3 captures the mean score for the two groups:

| Schools | N | Mean (SD) | SE | Min | Max |
|---|---|---|---|---|---|
| TG | 63 | 17.17 ± 3.92a | 0.49 | 7 | 26 |
| CG | 66 | 14.03 ± 3.34b | 0.41 | 5 | 22 |

Table 3: Post-test performance in English grammar of control and treatment schools
A *mean values in a similar column denoted by similar letter are not significantly different (p>0.05)*

The results (Table 3) indicated that the treatment group had a higher mean score of 17.17. These results were subjected to the t-test analysis to determine their level of significance. The findings are presented in table 4:

| | Sample Differences | | | | | t | Df | Sig. (2-tailed) |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Post-test TG-CG | 3.04762 | 4.62960 | .58327 | 1.88167 | 4.21357 | 5.225 | 62 | .000 |

*Table 4: T-test results on the relationship between post-test grammar mean scores of treatment and control schools Test at 95% C.I.*

The t-test results in 4 showed that there was a statistically significant difference between the performance of the schools exposed to the videos in the learning of grammar and those not exposed (P< 0.01; df=62; t= 5.225), in favour of the schools that were exposed. This study therefore rejected the null hypothesis and concluded that, videos had a positive influence on students' achievement in grammar.

*9.3. Interview findings on students' views on the Influence of Video on the Learning of Grammar*

Ten students from each group participated in the interview, making a total of 20 respondents. The students shared their experiences on the learning of English. This phase of the study enabled the researcher to get in-depth data on their experiences in using videos for learning grammar.

The participants from the TG were first asked whether they liked their video assisted grammar lessons, all of them answered on the affirmative. They were asked to state in one word how they would describe their experience in using the videos for learning. The words that came up were interesting, fantastic, encouraging, engaging, fun, exciting, enjoyable and entertaining. Prodded further on how the videos made their learning interesting, some expressed that the videos were teaching in ways that made them understand, but in an interesting way from what they were used to. Others observed that the beautiful pictures in the videos were interesting. The videos also made the lessons to be informal thus the students were relaxed.  It also came out from the interviews that in one of the videos, there was a short documentary in which the actors were audible and which helped in making real the aspects of the topic that they were learning. When prompted on the aspects of the videos that they found interesting, the students noted the songs and the games.

The participants were further asked to comment on the activities in the videos.  In line with the paradigms of David Jonassens principles, students learn best if they take an active role in their own learning. Some students opined that the videos had games that they played with the help of the teacher, for example a game where students competed in groups on listing down as many adverbs as possible. They observed that the games offered them opportunities for self- challenge on the grammar areas that they had already learnt. They expressed that the cooperative activities brought in variety in their learning process. The study also found out that most video clips had songs whose tunes were familiar to them and they therefore participated in singing along. The students recorded their own short clip in form of a song from a tune that they all knew. The songs in the videos helped them to understand more. They were also able to recall what they had learnt.

Most of the grammar video clips had songs which helped us to get information easily. They also helped us to remember what we had learnt in the previous lessons. Through the songs, we got a better understanding of the topics; we sang along the songs and even made our own song.
TG# 3

About the interaction, the students noted that through the games and the pictures, they had a chance to express their views as well as play the games in groups. Constructivism posits that learning is meaningful when it is interactive.  The interactivity meant working out activities like exercises, quizzes and responding to the speakers in the video clips. The students expressed that these activities were interesting and engaging. Everyone had a chance to do something unlike in answering oral questions where only a few students get a chance to answer.
What made the lessons more interesting was that there were some games that we participated in groups. The winners were given some presents. The videos also had interacting pictures on issues we were familiar with, for example, where adverbs were taught using a video on a field event.
TG # 1

One of the concerns in terms of the activities of the videos was that the time was too short. The students opined that double lessons would have been better. The students were also requested to comment on the organization of the videos. Some learners felt that the pace of the videos was too fast, they said that the fact that there was no chance for repetition unless the teacher back played the videos meant that they left out some blank spaces in their notes. This was more so in videos where the speaker had an accent different from their own.

The students in the CG were asked to comment on their experience in learning English grammar. They observed that grammar is interesting but the fact that it is rules based make it difficult. When asked to explain, it came out that the

prescriptive aspects of grammar requires the students to commit to memory so as to recall some aspects. Prompted to give examples, they cited the topic of future tense which required them to remember the indicators of the tense. Others noted that they were used to learning grammar since every unit in their English course book contained a grammar lesson.

We have grammar topics every week and we are therefore used to learning it. It is reflected well in our course book. So there was nothing new in learning those topics.

CG# 3

*9.4. Interview findings on the teachers' views on teaching of grammar*

Findings from the teachers' interviews in the TG revealed that the students were eager to watch because they were interesting. The teachers were asked to comment on the sound, pictures, content and activities of the video clips. They observed that the videos pictures and sound were clear, adding that the use of colour was captivating to the learners and may have helped in enhancing retention. It also came out from the interview that the pictures in some video clips were in form of cartoons, and this made the lessons even more captivating. On the content of the videos, the teachers noted that the topics covered were adverbs, future tense, collective nouns which are part of the English syllabus.

On the activities of the videos, it was reported that teaching with videos kept the students more focused and actively involved. The songs in some clips helped in sustaining attention.

When using the videos, everybody was quiet and attentive. The songs in the videos were interesting and students sang along. The songs were played repetitively and this made them get the tunes very fast. Some of the tunes in the songs were also familiar to them.

TG#2

The games in the videos engaged them; the teachers reported that the students enjoyed playing a game that involved listing down as many adverbs as possible in groups. They were required to come up with twenty adverbs and write them on the chalk board, a game that they enjoyed. Teachers, however, observed that the games and songs were few and recommended that they needed to be more since the students enjoyed them.

In the CG, teachers echoed the words of the students that grammar was systematically incorporated in the English syllabus. They however noted that most students did not do well when it came to applying the grammar rules in the productive aspects of the English language like speaking and writing. When prompted for examples, they noted the tenses where students were not good in applying correctly and consistently tenses that were required in writing and they tended to mix them up. They also observed the topic of parts of speech where students found it difficult to use the correct forms of words.

*9.5. Observation findings on the influence of videos on the learning of grammar*

An observation was carried out in all the schools during the grammar lessons. This was meant to give further insight into the learning activities or any other observable behaviour in the classroom. The researcher, a non-participant observer sat in one lesson for each school at the experiment stage to get primary data on the teaching and learning of grammar. The units of the observation protocol were the content of the lessons, resources, teaching methods, learning activities, the components of the videos and any observable behaviour of learners. A look at the English secondary school syllabus revealed that the topics were well defined and reflected the topics expected to be taught in form two. These were adverbs, future tense and collective nouns. All the schools had the same course book as resource. In addition to the text book, the TG had the videos as an intervention. Each lesson had two or three clips which were in form of dialogue, song or game. Most of the clips had activities that allowed for learner involvement.

Observation findings from TG showed that learners were taken through the topics, through the teacher's exposition, asked oral questions and took down notes. Group work activities were also used in some lessons. In one of the lesson, the students were put in syndicate groups of five members and they were given a similar task of listing down as many adverbs as possible within some specified time. The teacher was not able to give immediate feedback due to time constraints. In another lesson on future tense, the teacher employed buss groups where the students were given quick tasks of writing down three sentences in the future tense. A few pairs were sampled to present their sentences. The learners participated fully in these activities. Findings further revealed that the video clips were projected from the computers and viewed on the wall which acted as a screen. It was observed that the students were enthusiastic, would actually run to the computer lab for the video assisted lessons. The pictures were clear and students remained attentive during the lesson. The grammar videos also had interesting songs on the topics that they were learning and students would sing along.

In the CG, it was observed that the main teaching and learning activities were teachers' exposition, sessions of oral questions, and note taking. In all the grammar lessons, the students were given a written assignment which the teacher checked and gave feedback. At TG, the learners were first exposed to the lesson, took some short notes from the teacher's exposition which mainly was on the definition of the main topic. This was followed by moments of watching the video clips, during which the teacher would make brief pauses to explain some concepts. It was observed that the videos elicited more attention and the students were attentive throughout the lessons.

## 10. Discussions of findings

The purpose of this study was to examine the influence of videos on achievement in English grammar among secondary school students. According to the Kenya Secondary Schools English Syllabus volume 1 (Kenya Institute of Education, 2002)25 the chief objective of teaching grammar is to help students understand how language works and to use it correctly and appropriately in different contexts. The syllabus also proposes that in order to help the learner a thorough mastery of the language as a whole, grammatical structures should be presented in context. A grammar item should be presented to the class within its contexts. The aim of this is to get the learner to perceive the structure- its form and meaning in both speech and writing. The syllabus recommends that teachers need to be very creative and innovative as they think of the best ways of utilizing both literary and non- literary material to help the learner acquire grammatical competence, which may mean going beyond the course book and using other supplementary resources. This study found out that videos had a positive influence on students' achievement in grammar.

Findings of this study are consistent with a study by Hayati and Mohammedi (2010) cited in Mohammed (2013)26 which investigated the effects of using films with English and Persian subtitles and without subtitles on listening comprehension on English as a first language (EFL) intermediate students. The students that received the films with English subtitles outperformed the other groups. This revealed that subtitled videos had a positive effect on listening comprehension. Another study undertaken to gauge the difference computer technology makes to grammar learning (Barr, 2008)27 revealed that the students generally reacted positively to the use of computer based model in grammar teaching and which seemed to encourage students to engage with their grammar learning and enjoy grammar classes. The study (Barr 2008)27concluded that computer technology made a difference in changing students' attitudes towards learning grammar.

Research has also been done across other disciplines. In a study that was done to explore the use of physics videos as an additional media resource in teaching and learning of the subject as a way of improving students' performance (Gakuru, 2013)28, results showed that there was a higher performance for the treatment class, especially in process skills and concept development, being significant at .05 level. In another study carried out to evaluate the effectiveness of video assisted teaching (VAT) on the knowledge and practice of dental hygiene among primary school children in Bugalore, India, VAT was found to be effective in improving knowledge and practice of primary school children in the area of dental hygiene (Nyirahabimana, 2015)29, where the hypothesis stating that VAT would improve dental hygiene was confirmed at 95%.

The use of resources to guide and support students in their learning is not a new concept in particular in the area of language teaching. A lot of studies have also been conducted comparing the use of computer based approach to a traditional teacher directed approach. Research on second language acquisition with multi media has investigated how multimedia- a combination of text, audio and images can enhance input by making it more meaningful thus enhancing students' second language development (Plass & Jones, 2005)30. Using multimedia for second language acquisition is based on the multimedia principle that states that students acquire language better from input enhanced by text and pictures than with text alone. The reason for this is that the availability of two models (text and pictures) helps learners to construct verbal and visual mental models of input and build connection between them. Hence learners have the benefit of retrieving learned materials from two types of cues rather than one (Plass and Jones 2005)30. One of the ways to create more enhanced input in multimedia is to use video technology.

This study was carried out on a framework of David Jonassen's constructivist principles. David Jonassen describes the essential components of a constructivist learning environment (CLE). One of these is the existence of related cases, where a series of related experiences are represented. The related cases support learning by enhancing memory, providing different perspectives, themes and interpretations, they convey the complexity of the problem and enhance student cognitive flexibility Jonassen and Wilson (1999)31. In line with this, findings of this study showed that the learners were presented with a variety of video clips in the learning of grammar. Each clips had a different way of handling the topics. These varied ways included songs, dialogue and games.  This enhanced constructivist learning environment. Another component of CLE is the presence of Cognitive Tools. These are tools that help visualize, organize, automate, or supplant thinking skills. Jonassen calls them mindtools; S (Jonassen, 2000)18.  According to Jonassen, "Mindtools are knowledge construction tools that learners learn with, not from. The videos in this study were the mind tools, which the students learnt with and from.

Another concern of David Jonassen's constructivist principles are the characteristics of meaningful learning. These characteristics provided insights into how videos materials can be used in meaningful way of teaching and learning. According to Jonassen, meaningful learning is active. This implies that students learn best if they take an active role in class. For Jonassen, active learning means that "Learners are engaged by the learning process in a mindful processing of information" Jonassen, (1995: 60)32. The interview findings revealed that one of the things that made the video lessons more interesting was thatthere were some games that the students participated in. The study also revealed that learners enjoyed the songs with which they sang along. This concurs with Jonassens' views that meaningful learning can occur when the learners are in the roles of active learners where they use different tools actively in their learning environment.

Another characteristic of meaningful learning that applied to this study was collaboration. In this study, the students opined that the videos offered them opportunities for interaction. They noted that through the exercises and the competitive games, they had a chance to express their views as well as play the games in groups. They added that the interactive activities were interesting and engaging and everyone had a chance to do something unlike in answering questions where only a few students get a chance to answer. According to Jonassen (2002)19, contextual learning is that which resorts to learning asks

that are either situated in meaningful real-world tasks or simulated through a case based or problem based learning environment. Videos have the ability to create a representation of the real world environments that employ the context in which learning is relevant. Findings of this study revealed that the learners identified with the videos because some of the clips had situations that they identified with.

## 11. Conclusion

The study concluded that the use of videos has a positive influence on students' achievement in English grammar. The study also concluded that the constructivist principles posited by David Jonassen can be a good framework for developing programmes for video-based teaching and learning of English grammar, and specifically, his concept of the mindtool as well as the characteristics of meaningful learning. Based on the findings of this study, a lesson plan template for a video-enhanced grammar lesson was developed. This is captured in figure 1:

| Name | |
| --- | --- |
| School | |
| Date | |
| Time( 40 Minutes) | |
| Topic | |
| Sub- Topic | |

Objectives
By the end of the lesson, the learner should be able to:
i_____
ii_____
iii_____

Tools and resources
Computer, projector, videos in form of DVDS, white board and whiteboard marker,
Introduction – 5 minutes
Students watch a short video clip for set induction. Questions are posed based on this clip. In an exposition, the teacher introduces and explains to the students the main points of the topics.

Lesson development( 27 minutes)
Step 1 (10 minutes): Students to watch the second video clip. Teacher to poses some questions as the video clip is going on, pauses at various points to allow them to take notes. They may refer to another resource like a textbook
Step 2 (10 minutes): Introduce an activity in the clip, demonstrate to them. In groups, the students carry out the activity. It can be a game, a discussion. The activity should be cooperative, collaborative or competitive. Positively reinforce all the groups.
Step 3 (7 minutes): Introduce a last video clip with a short song related to the topic. Play it repeatedly. Allow learners to sing along.
Conclusion (8minutes)
Use a session of oral questions to summarize the main points of the lesson. Randomly pick participants to respond to them. Involve the volunteering and the non volunteering students.

*Figure 1: Lesson plan template for teaching English with videos*

Quantitative and qualitative findings of this study informed the lesson plan template. It was grounded on the theoretical framework that guided this study. Specifically, the template took into consideration the characteristics of meaningful learning that were applicable in this study. These characteristics are: active, constructive/reflective, collaborative/ conversational, contextual and intentional. However, as it doesn't mean that all the characteristics must be there. If one, or a few characteristics are present, meaningful learning can still take place (Karppinen, 2005)20. In this study, the characteristics that came out strongly as being effective in promoting a good learning environment thus positively influencing students' achievement were active, collaborative and contextual.

## 12. References

i. Kenya Institute of Curriculum Development (2014). Report on the piloting of the KICD digital content developed for the standard one laptop initiative. Nairobi: Kenya Institute of Curriculum

ii.      Development.
iii.     2. Gathumbi, W. A. & Masembe, C. S. (2005). Principles and techniques in Language Teaching:   A text for Teacher educators, Teachers and pre-service teachers. Nairobi: Jomo Kenyatta Foundation.
iv.      Okwara, M. Shiundu, J. and Indoshi, F. (2009). "Towards a model of integrated English language curriculum for secondary schools in Kenya." Journal of education research and review vol.4 (5) pp301-309.
v.       Kenya National Examination Council (2008,2011,2017). Kenya Certificate of Secondary Examination annual reports : Nairobi: KNEC.
vi.      5.Visoi, M. (2010). "Contextualized foreign language instruction: Effective classroom strategies and blackboard- based virtual learning." International Journal of Arts and Sciences 3(11)116-122
vii.     6. Hibbert, M. (2014). What makes an online instructional Video Complelling. Retrieved on April 7, 2014 from www.educause.edu/ero
viii.    7. Thornbury, S. (1999). How to teach grammar. Essex: Pearson education limited.
ix.      8. Khan, R. N. (2007). Effective grammar teaching in ESL classroom. BRAC University, Department of English and Humanities. Bangladesh: Ayesha Abed Library.
x.       9. Hymes(1972). 'On communicative competence" In Pride, J. B. and Holmes, J. (eds). Sociolinguistics. Selected Readings. Harmondsworth: Penguin, pp 269-293
xi.      10.Chomsky, N. (1965). Aspects of the theory of syntax. Massachusetts: Massachusetts Institute of Technology Press
xii.     11. Larsen- Freeman, D. (2009). "Teaching and testing grammar." In Long, M. and Doughty, C. (Eds). The Handbook of language teaching. (pp 518-542). Malden, MA: Blackwell.
xiii.    12. Larsen-Freeman, D. ( 2001). "Teaching grammar." In Murcia, M. C. (Ed). Teaching English as a second or foreign language.  3rd edn (pp251-266). Boston, MA: Thomson/ Heinle
xiv.     13. Nunan, D. (1998). "Teaching Grammar in context." ELT Journal 52 (2) 101-109.
xv.      14. Purpura, J. (2013). Assessment of grammar. In A. J. Kunnan (Ed.), Companion to Language Assessment (pp. 100-124). Oxford, UK: Wiley-Blackwell.
xvi.     15. Lado, R. (1961). Language Testing: The construction and use of foreign language tests. London: Longman.
xvii.    16. Bachman, L.F. & Palmer, A. S. (1996). Language Testing in Practice. Oxford: Oxford University Press.
xviii.   17. Zhang, D., Zhou, L., Briggs, R. & Nunamaker, J. ( 2006). "Instructional video in e- learning: Assessing the impact of Interactive video on learning effectiveness." Journal of information and management 43(2006) 15-27.
xix.     18. Jonassen, D.H. (2000). Computers as mind tools for schools: engaging critical thinking. Upper Saddle River, NJ:Prentice Hall.
xx.      19. Jonassen, D. H. (2002). Learning as activity: Educational Technology. Upper Saddle River. NJ: Prentice- Hall.
xxi.     20. Karpinen,P.(2005). "Meaningful learning with digital videos: Theoretical Perspectives." AACE Journal, 13 (3) 233-250
xxii.    21 Creswell, J.W. and Clark V. L. P. (2011). Designing and conducting mixed methods research. 2nd edition. London: SAGE Publications Inc.
xxiii.   22. Suter , W. N. (2006). Introduction to Educational Research; A critical thinking approach. London: SAGE Publication
xxiv.    23. Cook, T. and Campbell, D. (1979). Quasi- experimentation: Design and Analysis issues for field settings. Chicago: Rand Mcnally.
xxv.     24. Campbell, D. and Stanley, J. (1971). Experimental and Quasi experimental designs for research. Chicago:  Rand Mcnally.
xxvi.    25. Kenya Institute of Education (2002). Secondary education syllabus. Vol 1. Nairobi: Jomo Kenyatta Foundation
xxvii.   26. Mohammed, R. (2013). The effectiveness of using subtitled videos to teach grammar. A thesis submitted in partial fulfillment of the requirement of the degree of Masters of Art Iowa State University: Ames,Iowa.
xxviii.  27. Barr, D. (2008). "Computer enhanced grammar teaching." In Zhang, F. and Barber, B .(Eds). Handbook of Research on computer enhanced language acquisition and learning. Information Science Reference: New York.
xxix.    28. Gakuru, P. M.(2013). Effects of physics instructional videos as an e learning resource on performance among secondary school students in Githunguri District Kiambu County, Kenya: A thesis submitted in partial fulfillment of the degree of master of education in the school of education of Kenyatta university. Nairobi: Kenyatta university.
xxx.     29. Nyirahabimana, C. ( 2015). "Evaluation of the effectiveness of video-assisted teaching on knowledge and practice of dental hygiene in Bungalore's primary schools."  Rwanda Journal Series 2 (2) 90-102
xxxi.    30. Plass, J. and Jones, L. (2005). "Multimedia learning in second language acquisition." In Mayer, R. (Ed). The Cambridge handbook of multimedia learning ( pp 467-488). New York: Cambridge University Press.
xxxii.   31. Jonassen, D. H., Peck, K. L., and Wilson, B.G.(1999). Learning with Technology: A constructivist perspective. Upper Saddle River. NJ: Prentice- Hall.
xxxiii.  32. Jonassen, D. H. (1995). "Supporting communities of learners with technology: A vision for integrating technology with learning in schools." Educational technology pp (60-63)