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Assessing Impact of Videos on English Comprehension in a Namibian Secondary School

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Guided by Mayer's Cognitive Theory of Multimedia Learning, we assessed a learning environment where learners were exposed to authentic and rich language input. Using videos, the study explored the impact of multimedia on language comprehension. Participants were 82 Grade 11 learners doing English as a Second Language in Omusati Region of Namibia. This study, being a comparative quantitative study, used an equivalent experimental group and control group quasi-experimental research design. Findings of this study show that teaching with videos as supplementary materials has a positive effect on improving learners' language comprehension. The study recommends that language teachers use audio-visual media as supplementary materials when teaching English language comprehension skills

Key Words: academic performance, Cognitive Theory of Multimedia Learning, language comprehension, multimedia, videos

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INTRODUCTION

We begin this paper by providing a brief overview of the education reforms in Namibia, particularly as it relates to the teaching of English Second Language. Over the years, the Namibian education system has gone through several transitions in terms of the languages used as a medium of instruction in schools. Afrikaans was the predominant medium of instruction in Namibian schools, which was mandated by the colonial South African regime until 1983 when the medium of instruction changed to English in some government schools. However, little was done to ensure the smooth transition from Afrikaans to English as a medium of instruction. As a result, teachers who were educated in Afrikaans were swiftly expected to use English as a medium of instruction, ultimately leading to a situation where English was not adequately taught (Ministry of Education and Culture, 1992).

At independence in 1990, the new Namibian government adopted English as the official language and the medium of instruction in schools. Nevertheless, English Second Language has been one of the poorly performing subjects on the Namibian school curriculum. The record of low grades in English is still quite worrying and it is clearly observable in the national examination results every year since the performance of learners who wrote the NSSC fulltime examination has been very low, with only 32% obtaining A* to D symbols. This is an obstacle because a learner who does not obtain A* to D symbols in NSSCO English as a Second Language will not get admitted into degree programmes at the biggest public universities in the country, namely the University of Namibia (UNAM) and the Namibia University of Science and Technology (NUST). These poor performances of English have raised many questions and concerns in the education sector. At the same time, poor performances have created an imminent need for seeking practical solutions that can improve learners' performance in English. Specifically, the language comprehension part has been identified as one of the English language components where learners have been constantly performing poorly (Ministry of Education, 2014 & 2020).

The NSSC English Ordinary Level Examiners' Report of 2014 highlighted that learners failed to answer questions successfully in a number of areas and this is largely attributed to poor comprehension of texts (Ministry of Education, 2014). Furthermore, on longer pieces of writing, most learners were also falling short in expressing themselves accurately when answering questions such as summarising texts, which was also attributed to poor comprehension. This could be due to the fact that teachers presented materials without visual aids such as videos as recommended in literature (Mayer, 2005). For example, Mayer (2005) found that the understanding of presented material is better in terms of retention and transfer when words and pictures are combined as opposed to using words alone. In this specific study, we examined the extent to which the use of videos impact Grade 11 learners' English Language comprehension skills.

The study employed an experimental design to investigate the following question: What effect does the integration of videos with other instructional methods have on learners' comprehension of English as a Second Language?

BACKGROUND LITERATURE

The following review of literature explores the impact of using videos in facilitating leaners' language development, particularly as it relates to English Second Language Comprehension. First, we discuss language development broadly and consider the conditions that influence language development and advancement. Second, we consider the use of multimedia in language teaching and how it creates unique opportunities for

language development. Third, we describe the use of videos as a source of authentic language input. Fourth, we explain effective ways of using videos in language teaching.

LANGUAGE DEVELOPMENT

Research in language learning has shown that language is learned faster when a person is exposed to the native speakers' language output over an extended period (Bahrani & Sim, 2012). For second language learners to acquire a language, they should be exposed to authentic language input, which can be achieved by immersing learners in a society with native speakers or a setting where the target language is widely used (Gass, 2013). While it is practically impossible to immerse all ESL learners in native speakers' societies, learning environments can be adjusted by replicating reality using videos to create a linguistically rich and valid alternative to living in an English native speakers' environment. The rise of information communication technology devices such as satellite and cable television networks, as well as the internet, are alternatives with the capacity to provide easy access to rich sources of language input that are beneficial to second language (SL) learners. Bahrani and Sim (2012) maintain that television shows and conversations hosted by native speakers of any language can serve as a great language resource to SL learners who in most cases have no immediate contact or exposure to native speakers of their target language.

Furthermore, theories on language learning have attempted to explain the conditions needed for language learning to take place. One of such theories is Krashen's Input hypothesis (as discussed in Gass, 2013), which proposes that SL is acquired when learners are exposed to authentic and comprehensible input. Comprehensible input is the content which is understandable to language learners despite them not understanding all words and structures in it and can therefore serve as a building block for learners to acquire a language. Krashen's position is that input is a fundamental feature in language acquisition and has an extensive implication for the classroom. According to Mićić (2024), developmentally appropriate animated cartoons can function as valuable sources of comprehensible input for language learners. These engaging visual materials not only maintain children's focus but also establish meaningful connections between images and vocabulary through immediate contextualisation. Mićić notes that animated content typically employs straightforward language combined with visual supports, enabling young viewers to comprehend situational context and derive meaning even when encountering some unfamiliar words. The significant improvement in vocabulary retention (Mićić, 2024) substantiates Krashen's (1982) Input Hypothesis, particularly its emphasis on comprehensible input. These findings not only validate the theory's core principles but also extend its application to digital storytelling contexts.

MULTIMEDIA AND LANGUAGE TEACHING

English language has not only expanded beyond the native speakers' geographical boundaries, but it has become the leading *lingua franca* in all spheres of global activities. English is the principal language in the global knowledge formation and transmission circles, from science, education, media, and technology, among others. Therefore, the need to develop aptitude in English comprehension is indisputable (Dodd at al., 2015). It is therefore vital that the Namibian schools' curriculum produces linguistically competent learners who are fluent in English and have the capacity to participate in discussions crucial to social and national development programmes.

According to Cakir (2006), all audio-visual materials have positive contribution to language learning, as long as they are used correctly. This is because, in the process of

learning a language, a learner needs both visual and auditory input to gain clear understanding of what they are learning. Therefore, using video materials in language teaching can be greatly beneficial to language learners. Video materials can be obtained from different sources such as replaying pre-recorded television programmes in the classroom and detailed video lessons on specific language skills. This would provide learners with authentic and language rich material, especially if the presenter is a native speaker of the language being learned. A survey carried out by Canning-Wilson (2000), which intended to test if students' interest in audio-visual materials can be linked to better language comprehension and learning, also revealed that students like learning through videos.

Özkan (2002) notes that language is continuously evolving, and so is the media such as television, radios and text news media, through which learners can learn a language. One way to expose SL learners to the target language, according to Özkan's research, is by incorporating audio-visual technology in lesson presentations and learning activities. Another strength noted from Özkan's research is that teaching with video materials relieves the workload pressure from teachers. Similarly, Cakir (2006) found that explaining using video becomes easier since learners can easily grasp the content because the video content is easier to understand as it has gestures, eye contact and other visual cues that can help a learner to understand what is being communicated. What Namibian English language teachers can learn from these findings is that learners should be exposed to language material in various formats. Teaching with audio-visual technology can help teachers adjust their teaching approaches from being teacher-centred to being learner-centred, with technology aiding the learning process. Väätäjä and Ruokamo (2021) argue that learners tend to take more responsibility of their learning and participate more actively when digital technologies are used in the classroom.

Damronglaohapan and Stevenson (2013) conducted a study to investigate students' perceptions of using English movies and videos clips from YouTube in learning English and enhancing listening skills. The experiment was conducted on 78 third year students learning English at a university in Thailand. In the study, students were given 10 video clips with exercises for a period of five weeks. Most students agreed that the video clips were more beneficial compared to textbook CDs. In addition, they also noted that videos helped in improving listening skills as well as in the comprehension of vocabulary. Another finding was that videos helped students learn new cultures. Movies were particularly found to be a great source of entertainment and beneficial in learning.

THE USE OF VIDEOS IN PROVIDING AUTHENTIC LANGUAGE INPUT

Authentic language input is the use of language material from a target language as they are presented in the target language. Such material may not have been produced specifically for language teaching (Bahrani & Sim, 2012). The advancement of educational technology has opened wider opportunities to access authentic language materials from multiple sources such as web blogs, video and audio sharing websites, such as YouTube, and TV, among others (Hamilton, 2010). Hamilton (2010) further found that these platforms provide easy access to language materials with audio-visual input which can greatly help ESL learners understand various linguistic expressions from authentic language materials.

Gilmore (2007) found that authentic language materials are more appealing to learners than materials that were designed specifically for teaching and learning purposes. Authentic materials focus on communicating a message instead of putting emphasis on specific language components that the teacher intends to teach. Therefore, authentic language materials give learners the opportunity to learn language in context. Using

authentic language materials, especially videos from different countries, exposes learners to diverse dialects, accents and pronunciations of various speakers of the target language (Gilmore, 2007). Relating these findings to the current research, learners can learn and comprehend language materials better if specific language components are integrated within content material given instead of presenting specific language components in isolation. For example, if a teacher is teaching the *past tense*, learners can be given language material with a story of past events, instead of just giving learners a list of verbs in the past tense. Giving learners a story of past events can enable learners to see how that specific language component (*past tense*) is used. Teachers can, for instance, download video material such as National Geographic Channel documentaries on significant historical events or prominent personalities and present them to the learners. Most of these documentaries are well narrated and can expose learners to a variety of other language components such as vocabulary, pronunciation and accent, thus giving learners extensive opportunities to improve their understanding of the language.

Wang (2014) made an analysis on the use of video materials in teaching English in Chinese universities and colleges. The analysis discussed three goals that teachers can set in teaching English with video materials. The first goal is that video materials must facilitate language development such as listening and speaking skills. Secondly, video materials must promote competence in intercultural communication. Because language represents different aspects of the native speakers, it is very difficult to learn a language without understanding the cultural, social norms and traditional background of the native speakers. Videos therefore offer a great opportunity to learn a language as they provide rich information on the language background. For instance, a Namibian who watches American movies will learn different vocabularies that are difficult to learn in a foreign country like Namibia. For example, football in the Namibian context is synonymous with soccer, but in the American context it is a totally different kind of sport. Therefore, language learners can learn a lot from video material such as movies of native speakers. The third goal for using videos is to cultivate students' artistic values and ability to appreciate art. This can be achieved when teachers encourage students to deconstruct meaning from videos and apply their insight to video materials. Video materials such as movies can help learners understand intricate concepts and situations that are not common in their countries or regions. Wang's (2014) analysis concluded that video materials can be utilised as pedagogically valuable sources of authentic language input for language learning. This conclusion agrees with other research studies which found that video materials arouse learner interest and motivate them to learn (Dodd et.al., 2015; Canning-Wilson, 2000; Alfaleh, 2015, Perez, 2022).

EFFECTIVENESS OF USING VIDEOS IN LANGUAGE TEACHING

A study conducted by Ismaili (2013) on the effectiveness of using movies in the English First Language classroom found that teachers generally believe that movies have a positive impact on students' language learning and combining them with other materials helps to enhance students' interaction and improve communicative competence. The same study found that using videos was pleasing and motivating because seeing and hearing the simulation of real-life situations is much better than just reading a book. Students participating in Ismaili's study also noted that videos helped them to improve their vocabulary. Research by Sánchez-Auñón et al. (2023) indicates that film-based language learning offers multiple benefits, with the most extensively studied advantage being the enhancement of all four language skills, namely reading, writing, listening, and speaking. Additionally, this approach facilitates vocabulary acquisition, fosters intercultural

awareness, and promotes critical thinking skills by exposing learners to authentic language use.

The strengths of video material in language teaching have also been noted in a study conducted by Weyers (1999), which measured whether a *soap opera* can improve students' listening comprehension. The study exposed students to episodes of a *soap opera* for a period of eight weeks. The analysis of the result suggested that the listening comprehension skills of students who participated in the study improved as a result of watching the *soap opera*. Sánchez-Auñón et al. (2023) emphasise that due to wide exposure to audio visual tools, such as YouTube, contemporary students learn differently from previous generations, necessitating technology-integrated teaching approaches for effective language acquisition. Their study highlighted technology as a pivotal tool in modern EFL classrooms, particularly through audio-visual aids, which enhance student engagement, motivation, and contextualised learning. According to Perez (2022), audio-visual teaching material, due to their multimodality and semiotic nature, makes second language learning natural for learners as they can rely on the richness of signals and symbols availed through multimedia that assist learners to construct meaning.

Although many studies praise the use of audio-visual material in language teaching, it is not an easy task to design or select the audio-visual material that meets the cognitive level of learners. Shortcomings in designing and using audio-visual materials should therefore be considered. Mathew and Alidmat (2013), note that a teacher's self-awareness and expertise have a direct impact on the use and effectiveness of audio-visual material used in language teaching.

Therefore, one way to improve the quality of instructional material used in Namibian schools is through training student teachers and teachers already in the field, on the effective use of new technological devices, web-based materials and applications that can be used in a 21st century classroom. Moeller and Reitzes (2011) are of the opinion that teachers need to develop positive attitudes towards the use of audio-visual aids, be innovative and monitor students' attitude towards their teaching styles. The implication that the use of audio-visual material has for the Namibian education sector is that teachers' pedagogical beliefs should be aligned with the new instructional models that incorporate technology in teaching. This paradigm shift will give teachers a positive attitude towards the use of technology-based instruction in their classrooms while eliminating hostility towards alternative instructional methods that have the potential to improve learning.

Ahmad and Abd Halim (2024) examined teachers' attitudes, responsibilities, and challenges in designing multimedia instruction for 21st-century learning environments. Their study found that while audio and visual media each have limitations resulting in one-way, ineffective learning, integrating auditory and visual modalities, audio-visual tools facilitate more comprehensive knowledge acquisition and skill development. However, teachers face significant barriers in creating such materials, including time constraints, high costs, and the need for advanced technical skills, which negatively impact their motivation. The researchers emphasise the necessity of prioritising educational technology to meet modern learning objectives, despite teacher apprehensions. The same study further proposes collaborative solutions, such as peer knowledge-sharing via email applications and other easily accessible communication platforms, to address time management skills, and resource challenges to create a more effective learning environment.

THEORETICAL FRAMEWORK

The study is framed within Mayer's Cognitive Theory of Multimedia Learning (Mayer, 2005) to generate data on the use of multimedia pedagogies in second language (SL) teaching, specifically reading comprehension. This theory was selected because it is

relevant to education as it helps to improve the design of multimedia instruction. The Cognitive Theory of Multimedia Learning is based on three assumptions, namely, dual channel, limited capacity and active processing assumption. These assumptions describe the merits and impacts of multimedia tools on the human mind in relation to learning, processing, organising and retrieving information. One key attribute in contemporary research on multimedia learning is clarifying the link between the instructional materials used in multimedia instructions with how the human mind works in processing the information. This theory contends that multimedia instructions that combine words and pictures stimulate learning better as opposed to presenting written words or spoken words only (Mayer, 2005). Our investigation focused on learners who were exposed to multimedia tools to learn and acquire language comprehension skills.

Central to the theory is the concept of **cognitive load**, particularly **cognitive overload** which arises when instructional content exceeds the learner's capacity to process information (Mayer, 2020). This overload can hinder comprehension and learning. Mayer (2020) categorises cognitive demands into three types: **extraneous processing**, which is unnecessary mental effort caused by poor design such as simultaneous use of text and images (Mayer & Fiorella, 2022); **essential processing**, which involves mental effort needed to grasp the material's complexity and can be overwhelmed if too much information is presented too rapidly (Mayer & Moreno, 2003); and **generative processing**, the beneficial cognitive effort learners expend to build understanding by linking new content with prior knowledge (Fiorella & Mayer, 2016).

To mitigate cognitive overload, Mayer (2021) and Mayer and Fiorella (2022) propose 15 multimedia design principles, three of which are particularly effective for managing cognitive demands in audio-visual materials. The **segmentation principle** posits that breaking instruction into user-controlled segments enhances comprehension by allowing incremental processing (Mayer, 2021). The **pre-training principle** suggests that introducing learners to key concepts before full instruction helps reduce intrinsic load during learning (Mayer, 2021). Lastly, the **modality principle** recommends using spoken narration alongside graphics instead of on-screen text, as this optimises the brain's use of auditory and visual channels, reducing extraneous processing (Mayer & Fiorella, 2022). Together, these principles support the development of well-designed multimedia instruction that fosters deeper learning and reduces cognitive strain.

METHODOLOGY

RESEARCH DESIGN

Our study was a comparative quantitative study, using an equivalent control group and experimental group quasi-experimental research design. In this experimental study, we answered this question: *What impact does using videos together with other instructional methods have on learners' comprehension of English as a Second Language*? In realising this, we formulated our hypotheses as follows:

- **H_0**: *There are no statistically significant differences in learners' comprehension of English as a Second Language between those taught using videos and the ones taught using other presentation methods such as chalkboard and textbooks-based teaching methods*.
- **H_1**: *There are no statistically significant differences in learners' comprehension of English as a Second Language between those taught using videos and the ones taught using other presentation methods such as chalkboard and textbooks-based teaching methods*.

Figure 1 illustrates the sequential structure, and the data collection instruments of the study involving 82 participants, divided equally into an experimental group (n = 41) and a control group (n = 41). Prior to the main study, a **piloting phase** was conducted with 8 participants to refine instruments and procedures; these participants were **not included** in the main sample. The experimental group received **video-based instruction**, while the control group received **audio and print-based instruction**. Both groups underwent a pre-test, a series of three aligned tests, and a post-test. Data from these stages were collected and analysed using comparative t-tests to evaluate the effectiveness of the interventions.

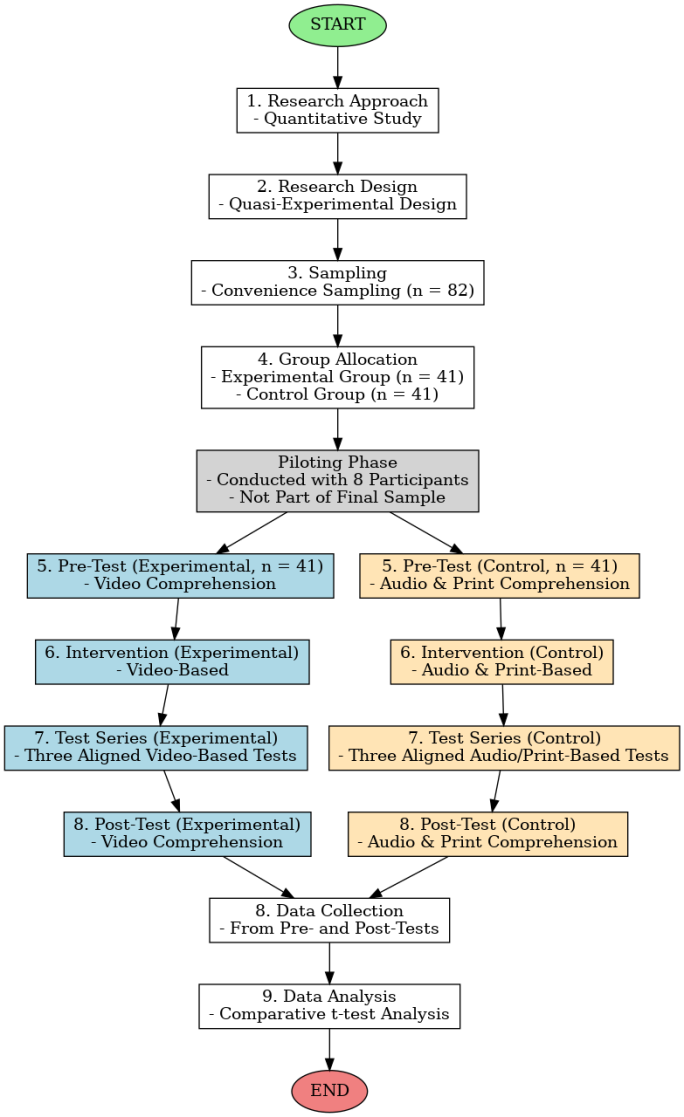

Figure 1. Sequential Structure and Data Collection Instruments Study

PARTICIPANTS

The study was conducted in Omusati Region, which as a target population, comprised 16 secondary schools offering Grades 11-12. A single school was selected for participation through purposive convenience sampling based on geographical accessibility to the

researchers. From this target school, Grade 11 class groups were randomly selected using cluster sampling methodology. Prior to data collection, the researchers obtained necessary ethical approvals from the Ministry of Education, Regional Directorate of Education. Learners participating in the study were informed about the purpose of the study and were assured of confidentiality protection. Following standard research ethics protocols, learners were informed of their voluntary participation rights, including the option to withdraw at any stage without consequence. A total of 82 Grade 11 learners from a selected secondary school in Omusati Region participated in this study (see Table 1). Two Grade 11 classes were selected, one class being an experimental group (41 learners) and the other being a control group (41 students). All learners who participated in the study were first language speakers of Oshiwambo and were learning English as a Second Language. Out of the 82 learners who participated in the study, 65% (N=53) were females, while 35% (N=29) were males. Participants' ages ranged from 17 to 22 years. Table 1 shows biographical information of experimental group and control group participants.

Table 1. *Biographical Information*

Gender	Experimental group	Control group	Total	Percentage (%)
Female	26	27	53	65
Male	15	14	29	35
N	41	41	82	100

*N= the number of participants

PROCEDURES

RESEARCH INSTRUMENT. Pre- and post-tests were used to gather data for the study. The pre- and post-tests were to establish learners' level of understanding in English comprehension activities before and after interventions. Questions in the pre and post tests were generated and constructed from the local Namibian Senior Secondary Certificate Ordinary (NSSCO) English Syllabus and tests were consistently administered to all participants. The consistency of administration ensured the reliability of the instruments as this study used only one type of instrument (in both pre- and post-tests) and these were administered once to all the participants.

Regarding content validity, tests were carefully checked to ascertain whether they measured the level of differences in learners' comprehension of English as a Second Language. To ensure that the research instruments were clear and valid, a pilot study was conducted. Participants were asked to comment on the questions in the tests, the duration required to complete tests, and their level of understanding of the questions in the tests. After the pilot study, some adjustments were made to the research instruments. The pre- and post-tests were validated by the senior education officer, who is an expert in teaching of English as Second Language as well as by the study supervisors who made corrections that were applied to the final instruments.

USE OF VIDEO MATERIAL. The videos used in the study were sourced from YouTube, featuring clear visuals, high-quality audio, and Standard English pronunciation and vocabulary and had no subtitles to minimise cognitive overload in input processing, as suggested by Mayer (2005). An intervention which comprised of video materials was given to the experimental group only, comprising of 41 learners. Three English comprehension tests which matched the competencies covered in the NSSCO English as a Second

Language syllabus were used. In the English comprehension tests, the experimental group watched videos and answered questions based on the videos. The control group had the same content as the experimental group but instead of using videos, the content was transcribed to text format. The group answered the questions based on the text. Thereafter, post-tests were given to the control and experimental groups.

DATA ANALYSIS

A comparative t-test calculation was carried out to test the impact that using videos together with other instructional methods had on learners' comprehension of English as a Second Language. An alpha value of .05 was used. Our premises were that if the *p*-value was less than or equal to the alpha ($p \leq .05$), then the null hypothesis (H_0) would be rejected. If the *p*-value was greater than alpha ($p > .05$), then we would accept the null hypothesis. The null hypothesis (H_0) suggested that there were no statistically significant differences in learners' comprehension of English as a Second Language between those taught using videos and the ones taught using other presentation methods such as chalkboard and textbook based teaching methods.

RESULTS

The overall research question examined what impact videos have on learners' English Second Language Comprehension skills. The statistical analysis indicated that there were statistically significant differences between the English comprehension pre-test and post-test scores for both experimental and control groups. The comparison of unpaired post-test scores also shows a statistically significant difference with the experimental group scoring higher than the control group, indicated in Table 2. Given the fact that the experimental group's scores were slightly higher compared to the control group's scores, we can conclude that the slightly higher scores of the experimental group could be due to the audio-visual materials that this group was exposed to as part of the experiment.

The results confirmed that video-based supplementary materials improved learners' English comprehension skills. While pretest scores showed no statistically significant difference between the experimental group ($M = 40.00$) and control group ($M = 42.93$), posttest results revealed a significant improvement in the experimental group ($M = 79.51$) compared to the control group ($M = 72.44$). These findings support the hypothesis that videos enhance comprehension when integrated into instruction.

Table 2. *Statistical Analysis of Language Comprehension Scores*

Comprehension Scores	Pre-Test		Post-Test		
	M	*SD*	*M*	*SD*	*t*(df) paired
Experimental	40.00	9.486	79.51	15.157	14.375(40)*
Control	42.93	11.009	72.44	15.776	9.278(40)*
t(df) unpaired	1.289(80)		-2.070(80)*		

*$p < .05$

ENGLISH COMPREHENSION PRE-TEST RESULTS

In this subsection, we present the comprehension pre-test scores of the control and the experimental groups. Figure 2 shows a comparison of the average scores of English comprehension pre-test for both groups.

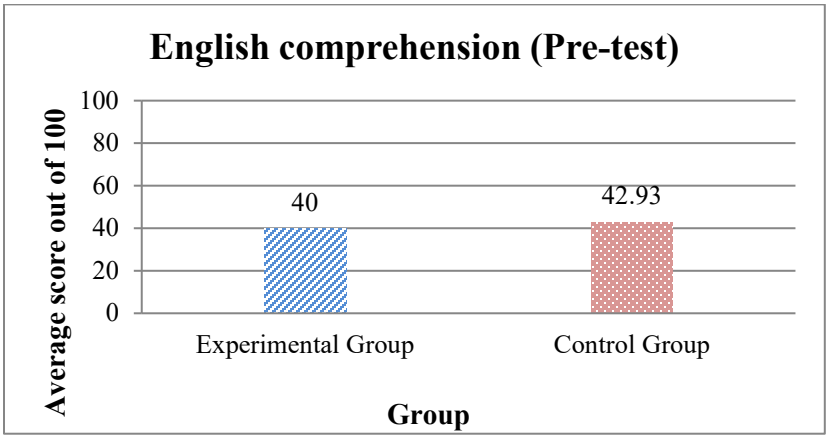

Figure 2. Comparison of pre-test scores (English comprehension)

Figure 2 shows that the average score of the control group is slightly higher than that of the experimental group with a difference of 2.93%. A t-test as to whether this difference is statistically significant is presented in Table 3, which tests the following hypotheses:

H_0: there are no statistically significant differences in the English comprehension pre-test scores of the experimental and the control groups.

H_1: there are statistically significant differences in the English comprehension pre-test scores of the experimental and the control groups.

Table 3 shows that at 95% level of significance ($\alpha = 0.05$) and *df* = 80, the *test value-calculated* = 1.289, which is less than the *t-critical* = 1.66. It was therefore concluded that H_0 is valid, i.e., there are no statistically significant differences between the English comprehension pre-test scores of both experimental and control groups.

Table 3. *Summary of English Comprehension Pre-Test Statistics of Experimental and Control Groups*

	Experimental Group	Control Group
Average	40.00	42.93
Standard D	9.486	11.009
Variance	90.000	121.219
T-value	1.289	

ENGLISH COMPREHENSION POST-TEST RESULTS

This subsection presents the post-test results for the English comprehension test that was administered to both the experimental and control groups. Figure 3 shows the average scores of English comprehension post-test of the experimental and control groups.

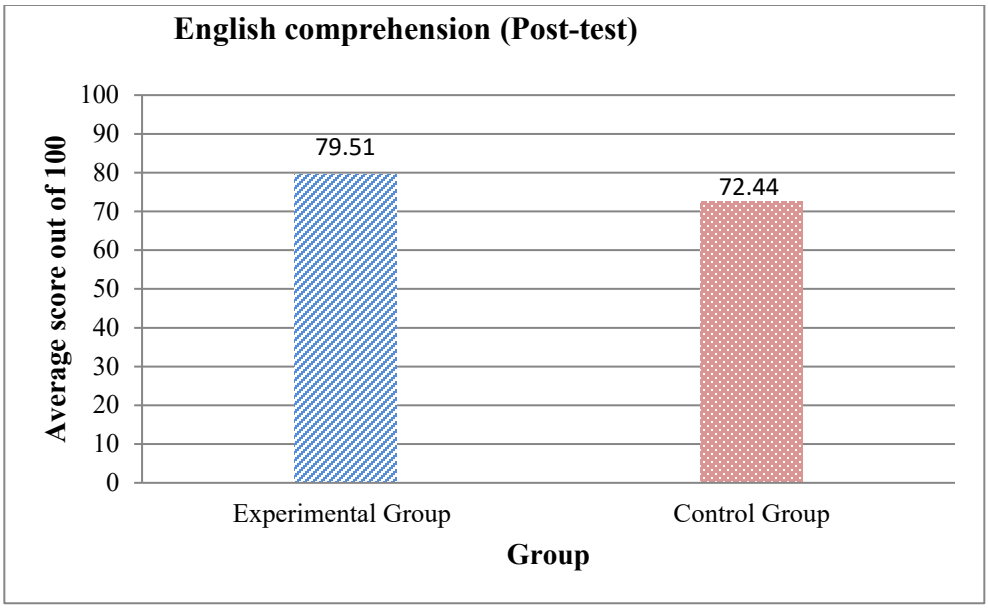

Figure 3. Comparison of Post-test Results (English Comprehension)

Table 4 shows that at α = 0.05 and *df* = 80, the *t-calculated* = -2.07 is more than the *t-critical = 1.66*. It can therefore be concluded that there were statistically significant differences between the English comprehension post-test scores of the experimental and control groups. In the next subsection we present a comparison of the English comprehension pre-test and post-test scores of the experimental group.

Table 4. *English Comprehension Post-Test Statistics of the Experimental and Control Groups*

	Experimental Group	Control Group
Average	79.51	72.44
Standard D	15.157	15.776
Variance	229.756	248.902
T-value	-2.070	

ENGLISH COMPREHENSION PRE-TEST AND POST-TEST SCORES OF THE EXPERIMENTAL GROUP

This subsection presents a comparison of the English comprehension pre-test and post-test scores of the experimental group. Figure 4 presents paired comprehension pre-tests/post-test scores of the experimental group.

Figure 4 shows that the post-test average score is higher than that of the pre-test with a difference of 39.51%. To determine whether this difference is statistically significant, a t-test is presented in Table 5, which tests the following hypotheses:

H_0: there are no statistically significant differences between the comprehension pre-test and post-test scores of the experimental group.

H_1: there are statistically significant differences between the comprehension pre-test and post-test scores of the experimental group.

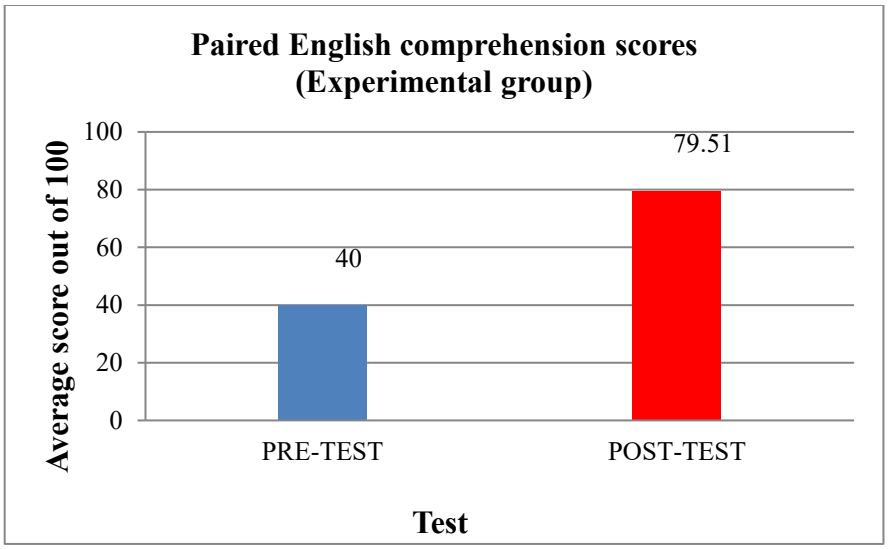

Figure 4. Comparison of Paired English Comprehension Scores (Experimental Group)

Table 5. shows that at $\alpha = 0.05$ and $df = 40$, the *t- calculated* = 14.375 is more than the *t-critical = 1.68*. Therefore, the conclusion that there were statistically significant differences between the English comprehension pre-test and post-test scores of the experimental group is valid.

Table 5. *Paired Comprehension Statistics (Experimental Group)*

	Pre-test	Post=test
Average	40	79.51
Standard D	9.486	15.157
Variance	90	229.756
T-value	14.375	

The next subsection presents a comparison of the English comprehension pre-test and post-test scores of the control group.

ENGLISH COMPREHENSION PRE-TEST AND POST-TEST SCORES OF THE CONTROL GROUP

This subsection presents a comparison of the English comprehension pre-test and post-test scores of the control group. Figure 5 presents paired comprehension pre-test and post-test scores of the control group.

Figure 5 shows that the post-test score is higher than that of the pre-test with a difference of 29.51%. To determine whether this difference is statistically significant, a t-test is presented in Table 4.10, which tests the following hypotheses:

H_0: there are no statistically significant differences between the English comprehension pre-test and the post-test scores of the control group.

H_1: there are statistically significant differences between the English comprehension pre-test and the post-test scores of the control group.

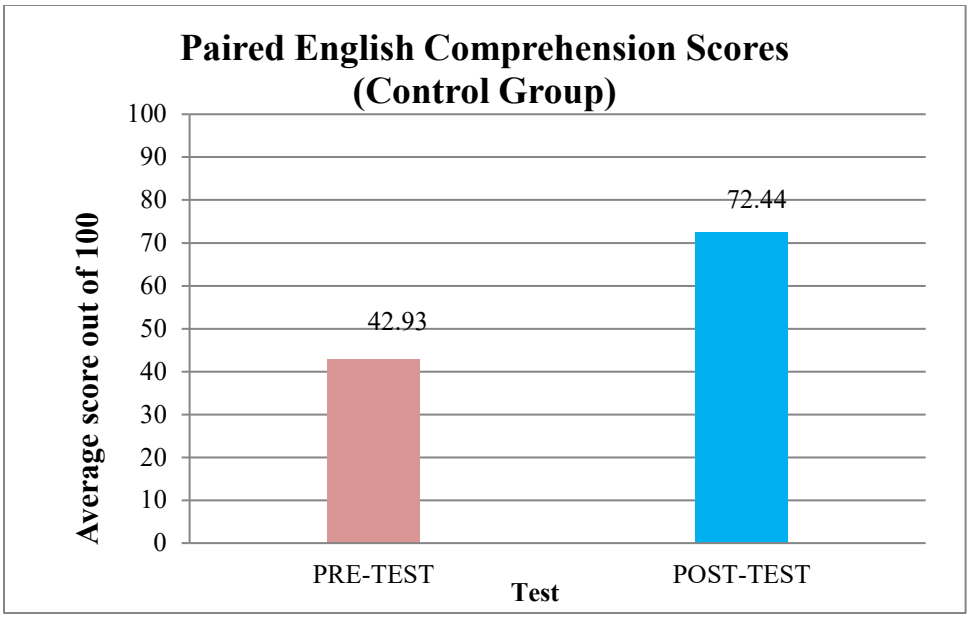

Figure 5. Comparison of Paired English Comprehension Scores (Control Group)

Table 6 shows that at $\alpha = 0.05$ and $df = 40$, the *t- calculated* = 9.278 is greater than the *t-critical = 1.68*. It can therefore be concluded that there were statistically significant differences between the comprehension pre-test and post-test scores of the control group

Table 6. *Paired Comprehension Statistics Of The Control Group*

	Pre-test	Post-test
Average	42.93	72.44
Standard D	11.009	15.776
Variance	121.219	248.902
T-value	9.278	

DISCUSSION

Our study explored the impact of using videos together with other instructional methods on learners' comprehension of English as a Second Language in Namibia. A pre-test and post-test were given to both experimental and control groups. A comparison of scores obtained from the pre-test scores of the control and experimental groups showed that the control group's average scores were slightly higher than those of the experimental group. However, to investigate the significance of this difference, a t-test statistical analysis was conducted. The results of the t-test showed that the t-calculated was smaller than the t-critical, which was indicative that there were statistically significant differences between the two groups in terms of their comprehension of English. This could be attributed to the fact that it was early in the study and no treatment had been given to any group, which is why the groups' performances showed the same trend. The fact that learners were randomly assigned to the experimental and control groups implies that each learner had an equal chance of being assigned to any of the groups.

After the pre-test, treatments were administered to the experimental group. Thereafter, a post-test was given to both groups. The post-test results showed that the experimental group had a higher average score than the control group. The t-test statistical analysis which compared the two groups' scores showed that the t-calculated was greater than the t-critical. This indicates that there were statistically significant differences between the two groups' scores. Since the experimental group's scores were slightly higher compared to the control group, the conclusion that can be drawn here is that the slightly higher scores of the experimental group could be due to the audio-visual materials that this group was exposed to as part of the experiment. These results complement prior studies of Mayer's Cognitive Theory of Multimedia Learning, which suggest that teaching that combine words and pictures simulate learning better as opposed to presenting words or spoken words only (Mayer, 2005; Mayer, 2016).

Worth noting, is a comparison of the English comprehension pre-test and post-test scores of the control group which indicated that the average scores of the post-test were higher than those of the pre-test. To check if statistically significant differences existed between these scores a t-test was done, which showed that the t-calculated was greater than the t-critical. It can therefore be concluded that there were statistically significant differences between the English comprehension pre-test and post-test scores of the control group. Importantly, the increases in the average scores of the control group's English comprehension post-test could be attributed to the exposure to reading materials which were given as part of the study. This finding coincides specifically with the latest work of Ahmad and Abd Halim (2024) who suggest that integrating auditory and visual modalities, audio-visual tools can facilitate more comprehensive knowledge acquisition and skill development.

Another comparison made was of the pre-test and post-test scores of the experimental group. Results showed that there was an increase in the average scores after the treatment was given to the experimental group. The statistical analysis of the t-test showed that there were statistically significant differences between the English comprehension pre-test and post-test scores of the experimental group. The experimental group's average scores increased with a difference of 39.51% between the pre-test and post-test scores, while the control group showed an increase of only 29.51%. The experimental group's average score increased by 10% more than the control group. This increase could be attributed to the video materials that were given to the experimental group. These findings are consistent with earlier studies conducted on multimedia and language learning (Cakir 2006; Canning-Wilson 2000; Özkan 2002). These studies found that audio-visual materials have a positive contribution to language learning. Although this is the case, we take cognisance that some studies have cautioned that teachers face significant barriers in using audio-visual materials such as time constraints, high costs, and the need for advanced technical skills, which negatively impact motivation (Ahmad & Abd Halim, 2024, Mathew & Alidmat, 2013).

PEDAGOGICAL IMPLICATIONS

In this section, we briefly discuss the pedagogical implications of using videos in teaching and learning language comprehension skills. It has been noted that teaching English SL nowadays is more challenging and demanding than before because language teachers "have to provide quality teaching materials that will be engaging, interesting, up to date while simultaneously being a tool that will ensure that the students learn" (Ismaili, 2013, p.121). Findings of this study have provided evidence that learners taught using videos performed slightly better in comprehension tests of English in comparison to those taught without using videos. Although the findings of this study were obtained from a limited sample and did not represent all English Second Language learners, the revelations

of this study provide a viable documented alternative approach to language teaching and learning. As others such as Herron et al. (cited in Ismaili, 2013, p.122), have pointed out.

Video is lauded for contextualising language (i.e. linking language form to meaning) and depicting foreign culture more effectively than other instructional materials. Videotapes permit students to hear native speakers interacting in everyday conversational situations and to practice important linguistic structures. Unlike audiocassettes, video's visual dimension is thought to reduce ambiguities present in native speaker voices and to motivate students to want to learn the foreign language.

Consequently, this provides insight into language teachers, language learners, learning institutions and instructional designers seeking alternative ways to improve language comprehension. This study, like other recent studies, argues that using audio-visual language materials will expose language learners to rich language input which can aid language comprehension (Sánchez-Auñón et al. (2023).

This study can serve as a guideline in designing instructional materials for second language learners; while providing an insight into the impact of audio-visual material in developing and improving language comprehension. It does not do any harm to use traditional teaching methods such as textbooks and audio CDs for listening, among others, however, results from this study indicate that learners' performance improved when they were taught with videos alongside the other learning materials. Teachers are therefore implored to develop proficiency in using multiple digital technologies and have the capacity to integrate audio-visual materials in their teaching. In their study, Bahrani and Sim (2012) concluded that video materials motivate learners to learn. Furthermore, instructional designers should design learning materials which include audio-visuals to compliment the traditional teaching aids such as textbooks and chalkboards. This will in turn meet learners' learning needs, attract interest and empower learners by reducing their dependency on the teachers. By using videos, learners will be empowered to learn without depending on the teacher as the only direct source of information.

Considering the fact that a majority of second language learners in Namibia have little exposure to native or first language speakers of the language they are learning, providing language audio-visual materials with rich language input will arouse learners' interest in the language, and this will ultimately help them to improve their comprehension skills. Institutions offering distance education can also provide enhanced education to their language students by giving them audio-visual learning materials.

As we are about to conclude, it is worth noting some important limitations of this study. The first being that the study ran for a longer period, eight weeks, where some learners might have lost interest in participating in the study. This was even though we tried in most cases to select the content that evoked learners' interest in the study. Second, the learners who participated in this study came from the same school, there could be a possibility that they might have shared the materials across the two groups - the experimental and the control groups. Third, the scope of this study's design and geographic coverage are both constraints. The study only concentrated on Grade 11 learners at a single school in the Omusati Region of Namibia. The effect of this limitation is that the findings might not be generalised to other 12 regions of Namibia. However, some valuable lessons and insights can be learned from this study, such as the use of instructional media in teaching English as a Second Language. Fourth, all learners who participated in this study were first language speakers of Oshiwambo, and some code-switched into their Oshiwambo vernacular language to overcome the English language barrier. Despite these limitations, this study can be used as foundational guide for further research on the use of multimedia tools to teach other aspects of English Language such as listening and speaking skills.

CONCLUSION

This study represents an important pedagogical step in the teaching and learning of English comprehension in Namibia. The results show that learners in the experimental class performed better than those in the control group, thus confirming our initial positive hypothesis that using videos as supplementary teaching materials has a positive effect on learners' English comprehension skills. Analysing both test results, the pre-test of the language comprehension showed that the control group scored an average of 42.93 compared to an average score of 40.00 for the experimental group, which were not statistically significant. However, language comprehension post-test scores showed a statistically significant difference between the control and experimental group scores, 72.44 and 79.51 respectively. Pedagogical implications are that using multimodal learning materials such as audio-visuals in teaching English second language can positively enhance learning achievement, especially in language comprehension.

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