

The Effect of Utilizing Audio-visual Materials and Non-audio-visual Materials in Teaching and Learning in Some Selected Schools in Kumba Sub-division.

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Abstract: The purpose of this study was to examine the use of audio visual materials in the teaching and learning of geography. The research design adopted was the quasi-experimental of pretest-posttest non-randomized control group. The main objective of the study was to establish if there is significant difference in academic performance in geography between students exposed to geography audio visual aids and those not exposed. The specific objectives were to assess the extent to which the comprehension of students taught geography using audio-visual aids differ from those taught using chalk and talk teaching process; the extent to which demonstrations of students taught geography using audio-visual aids differ from those taught using chalk and talk teaching process and the difference in ease of teaching with which teachers who teach geography using audio-visual aids have from those who teach using chalk and talk. Questionnaires were also administered to both teachers and students. Also, a teacher made performance test was used to collect data from the students for the pretest and posttest. SPSS was used to analyze the data in descriptive statistical forms. T-test analysis was used to test the statistical significance between the post-test scores of experimental and control groups. The results showed that there is a significant higher level of comprehension of the students when taught using audio-visuals compared to when taught using chalk and talk; students who were taught using audio-visuals reported significantly higher levels of demonstrations compared to students who were taught using chalk and talk; teachers who teach using audio-visual find it easier to teach compared to those who teach using chalk and talk. It is highly recommended that audiovisual materials for teaching of geography should be made adequately available and routine checks and maintenance of the technological devices like computers in secondary schools in Cameroon. Teachers should use various audio visual materials to meet different learning preferences and needs of the learners; seminars on the effective integration of some of these educational technologies should be organized at the beginning of each academic year.

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Keywords: audio-visual materials, non-audio-visual materials, geography

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Introduction

Rapid advances in technology have changed the way teaching and learning takes place and this can also be seen in the teaching of geography. Digital technologies such as interactive whiteboards influences geography teaching and the web presents opportunities for diverse and up-to-date sources and case studies to enrich lessons.

Using technology enables **us** to manipulate maps and graphs quickly, see them at different scales and highlight different features. Applications such as Google Earth, World mapper and Gap minder have changed the way we can understand the complexity of the world and give us access to information on different countries to analyze.

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Technology can provide very powerful learning environment for students. Smartphones, computers, social media and the internet are all part of students' everyday life and play a pivotal role in their lives. There is much potential to give students access to a range of sources of geographical information and enhance their geographical learning.

This can give them greater autonomy in geographical enquiries with access to web-based information and data handling and presentation tools. Virtual learning environments (VLEs) and school websites allow teachers to share digital resources with students and provide opportunities for more personalized learning environments and individual learning pathways.

Geography education is a crucial part of the curriculum as it helps students develop a better understanding of the world around them. Utilizing audio-visual aids in teaching geography can enhance students' learning experience by making the subject more interesting, engaging, and interactive.

According to **de** Guzma(2015), Geography is one of the branches of Social Science which encompasses a lot of topics in life on earth such as physical and cultural geography, topical, regional and systematic geography . Geography as a school subject, serves as a bridge between the physical and social sciences. Therefore, its instruction in schools needs appropriate use of teaching and learning materials to enhance effective teaching and learning process.

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Instructional materials/learning aids are teachers' strategic factor in organizing and providing education simply because they help to elaborate a concept that the teacher could not without an instructional material (Oni, 1992). The use of instructional/teaching learning materials bring life to learning in various ways such as arousing the interest of learners, stimulating pupils to learn, easing the work for the classroom teacher etc.

Instructional materials like audio visual aids make learning more interesting, practical, realistic and appealing. Their use also enables both teachers and pupils to participate actively and effectively in lesson sessions.

Instructional materials create room for acquisition of skills; knowledge and develop confidence and self-actualization in learners. However, the lack of its appropriate use or non-availability in schools is a problem in totality. Rittel and Webber (1973) referred to schools teaching pupils without available instructional materials or teaching/learning resources as a wicked problem that has many solutions but will ultimately take a while to be solved. The lack of resources in classrooms can cause extreme distress on both pupil and teachers in that it makes them unable to learn to their fullest and pupils offering the subject will face uncontrolled difficulties if instructional materials are not readily available and used effectively and appropriately. This will lead to poor performance of pupils in exams and or dropping it for an alternative subject. The use of instructional materials is imperative in order to enable pupils to be actively involved in class activities particularly when they are adequate and appropriate to their level. Therefore the objective of this study is to find the effects of utilizing audio-visual materials in teaching and learning geography using selected schools in kumba 1 sub division.

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Problem statement

Geography being a subject that deals with features and processes that occur on the earth surface is supposed to be taught in a way that students can understand these processes and features without just imagining them. They should be able to see these features and processes in order to boost their understanding and mastery of the subject. Rittel and webber(1973). Agu and Hammad (2005) believe that geography being a broad subject with about 9 branches makes most students to shy away from offering the subject in both secondary and high school Level. According to the GCE board statistics for geography 2024 academic year it showed a poor performance of about 49.37 % for ordinary level and 50.85% for advance level. This poor academic performance of students could greatly be influenced by the method used in teaching the subject. Agu and Hammad (2005) further observed that some teachers use lecture method to teach geography in secondary schools without considering the age and learning styles of the students. Thus making them not to participate in the class and not giving them inferential thinking skills leading to a situation where students are not active in the class room and not having interest in the subject causing poor performance. Poor performance may lead to students dropping the subject. It is for this reason that this study seeks to find out the effects of utilizing audio-visual materials in teaching and learning geography in some selected schools in kumba 1 subdivision.

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Research objective

The general objective of this study was to investigate the impact audio-visual material and non-audio- visual material have in teaching and learning geography.

Specific objectives

1. To find out the extent to which the comprehension of students taught geography using audio-visual aids differ from those taught using chalk and talk teaching process.

2. To find out the extent to which demonstrations of students taught geography using audio-visual aids differ from those taught using chalk and talk teaching process.
3. To find out the difference in ease of teaching with which teachers who teach geography using audio-visual aids have from those who teach using chalk and talk.

Hypotheses

Ha1: There is a significant difference between the comprehension of students taught geography using audio-visual aids and those taught using the chalk and talk teaching process.

Ha2: There is a significant difference in the demonstration of students taught geography using audio visual aids and those taught using chalk and talk process

Ha3: There is a significant difference in the level of ease of teaching with teachers who teach geography using audio visual aids with those who teach using chalk and process

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Literature Review

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Impact of utilizing audio visual materials on teaching and learning

Oko (2012) studied the use of AudioVisual for effective teaching and learning in some secondary schools in Nigeria. The study employed questionnaire survey to provide insight into awareness of the investigational group on audio-visual aids. Study participants consisted of 20 Form 2 students of evenly distributed academic performance with 10 in control group and 10 in experimental group. Students in control group were taught using chalk and talk method while students in experimental group were taught using audio-visual aids. Pre and post assessments were administered to the students in both groups to monitor how the two teaching approaches affected students' test results. A survey was conducted among students in experimental group to gauge their perceptions towards the use of imagination to better understand the concept. Audiovisual aids in teaching. The pre-and post-assessment results were analyzed with Analysis of Variance (ANOVA) while the survey findings were analyzed with Pearson correlation. Statistical Package for Social Science (SPSS) was used for the statistical analyses. The study shows that audio-visual aids are effective in increasing the understanding of students as indicated in the significantly improved marks for post assessment in the experimental group. Students were observed to be more attentive when audiovisual aids were played. Majority of students in the experimental group agreed that the use of audio-visual aids increased their interest and ability to remember the contents. The students in general expressed that they were motivated to learn if audio-visual aids were incorporated in the teaching and learning process. This study contributes to teaching of lower secondary science in rural schools by suggesting that teachers in rural secondary schools could download the audio-visual aids prior to using them in lesson delivery and the aids should undergo review to ensure appropriateness. In rural schools, financial

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allocation and maintenance of portable hardware for display of the audio-visual aids in teaching and learning should be looked into for the betterment of teaching and learning.

Utilization of AV aids in the classroom has been a key practice that is still to be actualized in the classrooms. Muteheli (2017) found out that many public schools had a variety of AV media such as computers. However, these media were not used for the instruction process because of some constraints which included; lack of electricity, teachers' heavy workloads or teachers' unwillingness to prepare or use media because they are time-consuming, inadequate training on the use of various instruction media, scarcity of funds for the acquisition of some media, teachers focusing on making students achievement in exam rather than refining their instruction method and finally, the training teachers underwent was more theoretical therefore they assumed that the norm in the instruction practices.

Difference in comprehension of students taught using audio-visual aids and those taught using chalk and talk

Akpan and Okoli (2017) investigated the effect of the use of Audio visual Materials on students' comprehension of Pupils in Ikwuano Abia State. The study population comprised of all the students from the public and private primary schools in Ikwuano Local Government Area of Abia state. The simple random samplings technique was used for the selection of the sample and 300 pupils made up the sample for the study. The instruments for data collection were a questionnaire and the result of a post-test. Data collected were analyzed using simple mean percentage. The findings were that the children who were taught with instructional materials performed better than those who were not. It was recommended that teachers should be made to undergo seasonal trainings to acquaint themselves of the modern trends in instructional technology; they should make out time for improvisation of instructional materials; an instructional material bank should be located within the reach of the teacher for easy access; there is the need to explore and expand the scope of instructional materials from charts, and pictures to overhead projectors, slides and web-based instruction which will require satellite receiver, computer, television, electronic boards etc.

One study conducted by Smith *et al.* (2015) examined the use of video lectures in a college biology course and found that students who watched the videos demonstrated higher levels of comprehension and retention compared to those who only received traditional lectures. The researchers concluded that the visual and auditory cues provided by the videos helped students better understand complex concepts and processes.

More so, still on improved comprehension and retention research has shown that audio visuals materials aid in deeper understanding and retention of information. For example Mayers cognitive theory of multimedia learning emphasizes that individual learn more effectively when they engage with both visuals and auditory content. A meta –analysis by Hattie (2009)

highlighted that audiovisuals aids significantly improve learning outcomes, particularly in complex subject that benefit from visual explanation and demonstrations.

Ibe and Abamuche (2019) also carried out a survey in Nigeria involving 150 students on the impact of AVs on learners' comprehension in Biology. The research applied a quasi-experiment study design and the findings discovered that the treatment group taught with AV resources scored higher marks than the control group taught with traditional methods of instructions. However, the study did not indicate the challenges teachers face when teaching with AV resources.

Another study was carried out by Adeyiga *et al.* (2024) on the effects of audio materials on students' performance in listening comprehension in senior secondary schools in Gwagwalada, Abuja, design in the collection of sample opinions. The population comprised of all the 4,380 students of the 8 conventional public senior secondary schools in the area. The simple random sampling technique was used to sample 100 SSS2 students from the population. The study used questionnaire and test to elicit information from respondents. The instruments were tested to ensure that they are valid and reliable for the study. The simple percentage, mean and t- test were used to analyze the data. After the analysis, the study found that the topic of the listening comprehension text used, audibility of teachers' voice, clarity of the audio-materials used, type of audio materials used, length of the listening comprehension text, oral form of assessment , written form of assessment, questioning as a teaching strategy, language of the listening text and the use pictures, realia, audio- material and teaching methods are some of the specific problems affecting the effective teaching of listening comprehension in senior secondary schools. The study also found that there is a significant difference in listening comprehension performance between students taught using audio-materials and those taught using classroom text at the literal, inferential and critical levels. Based on these findings, the study recommends that government at all levels and school management should ensure that adequate and quality audio-materials such as tape recorder, language, laboratory, microphone, radio, etc, are provided for teachers and students, in order to ensure that audio-materials are used in teaching of listening comprehension in senior secondary schools and as adopt basic strategies for approaching literal, inferential and critical level of listening comprehension. As a matter of fact, listening comprehension plays an important role in communication as it is said that, of the total time spent on communication, listening takes up 40- 50%; speaking, 25-30%;reading, 11-16%; and writing about 9%.

The extent to which demonstration of students taught using audio visual aids differ from those taught using chalk and talk process

Demonstration skill studies have also focused on how audio visual materials improve students demonstration skills. For instance, a study by Woritz et al. (2018) assessed the impact of video tutorials on practical skills in science education. Results indicated that students who used video resources were better able to demonstrate procedures and techniques compared to those who did

not. This is particularly relevant for disciplines like arts, sciences, and vocational training, where hand-skills are essential.

Audio visual materials cater for various learning styles, making lessons more accessible to a broader range of students. Studies suggest that incorporating different modalities help address the needs of visual learners, auditory learners and kinesthetic learners (Fleming and Mills , 1992) .

Ease of teaching for teachers who teach using audio visual aids

Numerous studies have demonstrated that audio visuals materials increase teacher's motivation and interest effectively than traditional teaching methods. For instance a study by kosslyn et al. (2012) found that those who teach with multimedia presentation showed higher levels of engagements, effectiveness and motivation compared to those who use lectures. The combination of verbal and auditory stimuli helps to maintain student's interest and engages active participation.

A study by kulik & kulik (2018) demonstrated that teachers who used animated videos to teach scientific concepts had a better conceptual understanding and increased teacher confidence and ease of teaching than those who use the talk and chalk method.

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Overall, these empirical studies suggest that the incorporation of audio-visual materials in educational settings can enhance students' demonstration of knowledge and skills by providing additional sensory cues and interactive experiences. Educators should consider integrating these tools into their teaching practices to support student's learning and engagement.

Methodology

Research Design:

The research design adopted for this study was Quasi-Experimental in nature. This study used the pre-test and posttest approach carried out in selected secondary schools in kumba 1 subdivision. The schools were randomly selected using simple random techniques and were assigned into control and experimental groups respectively. The selected schools are equal in terms of using the same government approved curriculum. These schools also have qualified geography teachers. Both control and experimental groups did the pretest before the experimental groups were taught with audio-visual materials as treatment. Audio-visual materials used included: video clip, a projector and a computer to teach the topic seismicity and volcanicity. After the treatment, the control and experimental groups did the post test. To verify whether students who were taught using audio-visual materials showed significantly greater performance in geography than students taught without audio-visual materials. The change was

measured by comparing the difference in the pre-test (before) and post-test (after). At the close of the experimental period, students in experimental group were given a questionnaire survey concerning their perception towards the use of audio- visual aids in the learning of geography. The questionnaire comprised of survey items which investigate whether students find audio-visual aids interesting and effective in helping them understand the topic of volcanicity. Another questionnaire survey was given to teachers who teach geography to find out their perception and ease of teaching geography using audio-visual aids. The survey items were selected with reference to the studies of Ismail et al. (2017), Mathew and Alidmat (2013). The study covered some selected secondary schools in the Kumba I municipality which included: Victory comprehensive college, Government High School Nkamlinkum, Saint John's college kumba town.

Area of the study

This study was carried out in **kumba**, precisely in the kumba 1 subdivision. The study covered some selected secondary schools in the Kumba I municipality which included: Victory comprehensive college, Government High School Nkamlinkum, Saint John's college kumba town.

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Population of the study

The survey was carried out in the **k**umba 1 municipality, with two lay private schools and one government school from the Municipality participating. This study's set of participants (the target population) included secondary school students (form 3-5) from Victory comprehensive college, Saint Johns college and Government high school Nkamlinkum of **k**umba 1 Municipality. The participants also included geography teachers of the above mentioned schools. The study specifically covered just Form 3 students. Reasons being since they study the physical branch of geography which focuses more directly on the physical features and happenings of the environment. Hence, the researcher saw them as perfect responders to engage. The formative ones (form 4 and 5) were left out of the study since the researcher believes these classes deals more with the human aspects of geography. The target demographic consisted of 2200 students from the three chosen schools in the **k**umba 1 municipality. However, the accessible student population was one hundred (100) form three A (3A) students from two chosen schools which were Victory comprehensive college and Saint Johns college. The target demographics for geography teachers consisted of 14 geography teachers from all the three schools. However, the accessible teacher population was 12 teachers reasons being two teachers were on leave.

Sampling procedure and sampling size

The desirable population was obtained through simple random technique. To obtain the samples, the names of the schools were written on piece of papers and put in a container and then drawn randomly. This method was used to eliminate bias and to provide accurate answers. The sample for the study consisted of 100 form three (3) students. These students were assigned into two groups.

Research instrument

The study adopted a teacher-made performance tests, as the instrument for data collection from the respondents. The simple reason for adopting a combination of this instrument is that, when carefully constructed and administered it gives an objective and reliable information. The teacher made test comprised of multiple choice type of questions and short answers. This was to help the researcher know the level of understanding of both groups and to ensure that students' cognitive faculty is most fully engaged. It was made up of 20 questions.

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Two instruments were used to collect data for this study, with the first one being a questionnaire on student's perception of audio- visual in teaching and learning. The questionnaire consisted of two sections (A and B). Section A was designed to elicit information on the respondents' demography while section B consisted of statements to which respondents were meant to indicate their level of agreement or disagreement based on the 4-point likert type scale. The likert scale adopted was as follows:

- SA – Strongly agree - D – Disagree - SD –Strongly disagree - A – Agree

The second instrument was used to collect data from teachers on the impact of audio-visual aids on teaching geography. The questionnaire consisted of two sections (A and B). Section A carried general information while section B consisted of statements on the usage of audio- visual aids in teaching geography. The respondents were meant to indicate their level of agreement or disagreement based on a four point likert scale.

Data Collection

A letter of introduction was sent to the heads in the selected secondary schools in Kumba 1 Municipality to obtain their permission to perform this research from the Department of Science of Education HTTTC Kumba. The sampled schools were visited by the researcher and permission sought from the institutional heads. When permission was granted, the researcher briefed the subject teachers on the nature of the research. Each school was assigned one week (3 periods) equivalent to 2hrs 15minutes to teach the topic "volcanicity and seismicity ". The pretest was administered to test the students understanding on the topic after going through the lesson without audio-visual materials used. After the test was done, the scripts were collected and marked by the researcher and the scores were recorded on 20marks. The researcher continued to teach after the administration of the pretest. The teaching took place for one week (3periods) while the field supervisor monitored (observed) how the researcher used audio- visual materials

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to teach the topic. After teaching the topic, a post test was administered to the control and experimental group. The immediate testing after teaching was to experiment ensuring that no new learning experiences interfered with the experimental conditions. The scripts were collected and marked by the researcher and scored over 20marks. The marks that individual students obtained were recorded by the researcher.

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Results

Results according to specific objective one: *To find out the extent to which the comprehension of students taught geography using audio-visuals differ from those taught using chalk and talk teaching process*

Results according to perceptions of participants

The results according to perception of participants is presented in table 1 below. The findings revealed that with respect to what extent students understand the materials using audio-visuals compared to chalk and talk teaching method, 84.8% of student respondents reported that their level of comprehension is better when the teacher teaches using audio-visuals. Similarly, with respect to whether the students remember the materials better when taught using audio-visuals compared talk and chalk, 60.9% of respondents reported that they remember better when taught using audio-visuals. More so, with respect to whether the students pay attention during lessons when taught using audio-visuals compared to talk and chalk, 69.6% of respondents reported that they pay attention during lessons when taught using audio-visuals. In addition, with respect to whether students actively participate in lessons when taught using audio-visuals compared to chalk and talk, 58.7% of respondents reported that they actively participate in in lessons when taught using audio- visuals.

Table 1 Perception of respondent’s level of comprehension when taught using audio-visuals compared to non-audio visuals.

SN	Items description	Strongly agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	Collapsed set	
						High	Low
1	Understanding of materials during lessons	78(84.8)	12(13)	-	2(2.2)	90(97.8)	2(2.2)
2	Remembering of lessons taught	56(60.9)	34(37)	-	2(2.2)	90(97.8)	2(2.2)
3	Pay attention during lessons	64(69.6)	26(28.3)	2(2.2)	-	90(97.8)	2(2.2)
4	Actively participate in lessons	54(58.7)	36(39.1)	2(2.2)	-	90(97.8)	2(2.2)
Multiple Response Set		252(68.5)	108(29.3)	4(1.1)	4(1.1)	360(97.8)	8(2.2)

Overall, as gleaned from table 1, majority of the students` (97.8%) reported better comprehension when taught geography using audio-visuals.

Experimental result (objective 1)

The experimental result is presented in table 2 below. T-test analysis revealed that students who were taught using audio-visuals on average had a significantly higher score on comprehension ($m=11.967$, $sd= 2.819$) compared to scores for students taught using chalk and talk ($m=7.109$, $sd=3.579$). In order words at 99% confidence level, students taught using audio-visuals performed significantly higher in comprehension compared to those taught using chalk and talk.

Table 2 T-test analysis of average scores on Comprehension according to teaching method

Teaching Method		Audio-Visuals		Chalk and Talk		t-value	p-value
Level of comprehension		Mean	Standard deviation	Mean	Standard deviation		
		11.967	2.819	7.109	3.579	7.233	0.000

Results according to specific objective two: *To investigate the extent to which demonstration of students taught using audio-visuals aid differ from those taught using chalk and talk teaching process.*

The results according to perception of participants is presented in table 3 below. Findings revealed that with respect to understanding demonstration concepts when taught using audio-visuals compared to talk and chalk teaching methods, 60.9% of students respondent reported that they understand demonstration concepts better when taught using audio-visuals. Similarly, with respect to whether students understand diagrams better when taught using audio-visuals compared to chalk and talk teaching method, 65.2% of student respondents reported that they understand diagrams better when taught using audio-visuals. More so, with respect to whether students are able to draw diagrams by themselves when taught using audio-visuals compared to chalk and talk teaching method, 56.5% of students respondents reported that they are able to draw diagrams by themselves when taught using audio-visuals. In addition, with respect to whether students can identify potential errors in their own diagrams when taught using audio – visuals compared to chalk and talk teaching method, 60.3% of student respondents reported they are able to identify potential errors in their own diagrams when taught using audio-visuals.

Table 3 Perceptions of respondents in terms of demonstration using audio-visuals compared to chalk and talk

<i>Demonstration</i>								
SN	Items description		Strongly agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	Collapsed set	
							High	Low
1	Understanding	of	56(60.9)	32(34.7)	4(4.4)	-	88(95.6)	4(4.4)
	demonstration concepts							
2	Understanding	of	60(65.2)	30(32.6)	2(2.2)	-	90(97.8)	2(2.2)
	diagrams							
3	Drawing of diagrams by		52(56.5)	36(39.1)	4(4.4)	-	88(95.6)	4(4.4)
	your self							
4	Identify potential errors in		58(63.0)	30(32.6)	4(4.4)	-	88(95.6)	4(4.4)

your diagrams

Multiple Response Set	226(61.4)	128(34.8)	14(3.8)	-	354(96.2)	14(3.8)
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Overall, as gleaned from table 3, majority of the students` (96.2%) participants reported better demonstration when taught geography using audio-visuuls.

Experimental results (objective 2)

The experimental result is presented in table 4 as shown below. T-test analysis revealed that students who were taught using audio-visuuls on average had a significantly higher score on demonstration (m=4.378, sd= 0.634) compared to scores for students taught using chalk and talk (m=3.822, sd=1.130). In order words at 99% confidence level, students taught using audio-visuuls performed significantly higher in demonstration compared to those taught using chalk and talk.

Table 4 T-test analysis of average scores on demonstration according to teaching method

Teaching Method						
Audio-Visuals		Chalk and Talk		t-value	p-value	
Mean	Standard deviation	Mean	Standard deviation			
Level of Demonstration	4.378	0.634	3.822	1.130	5.689	0.000

Results according to specific objective three: *To determine the difference in ease of teaching with teachers who teach geography using audio-visual aids have from those who teach using chalk and talk.*

In order to investigate whether teaching is made easier with respect to the use of audio-visuals and chalk and talk methods, findings can be seen in tables 5 and 6.

Table 5 Perception of ease of teaching using audio – visuals.

<i>Audio-Visuals</i>						
SN	Items description	Strongly agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	To ttal
1	Helps your students understand complex concepts	16	3	0	0	19
2	Break down materials easily	12	6	0	0	18
3	Retain information	16	3	0	0	19
4	Easier to teach geography using audio- visual compared to talk and chalk method	12	3	2	0	17
5	Limited internet connection and equipment's hinder the use of teaching with audio-visuals	12	0	2	1	15
Total		68	15	4	1	88

Overall, as gleaned from **table 6**, amongst the 10 teachers who participated in the current study, 5 of them who were taught using audio-visuals reported a score of 88 on 100 points that they find it easy to teach geography using audio-visuals.

On the contrary, as shown in **table 7** the other 5 teachers who taught using chalk and talk method reported a score of 62 on 100 points.

Table 7 Perception of ease of teaching using chalk and talk.

<i>Non-Audio-Visuals</i>						
SN	Items description	Strongly agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	Total
1	Helps your students understand complex concepts	8	3	0	2	19
2	Break down materials easily	0	9	0	2	18

3	Retain information better	0	9	0	2	19
4	Easier to teach geography using audio- visual compared to talk and chalk method	4	9	0	1	17
5	Limited internet connection and equipment's hinder the use of teaching with audio-visuals	4	6	2	1	15
Total		16	36	2	8	62

In a nutshell, the current study revealed that teachers who teach using audio-visuals find it easier to teach compared to teachers who teach using chalk and talk. This can be seen as illustrated in

Discussion and Recommendation

Results according to specific objective one: *To find out the extent to which the comprehension of students taught geography using audio-visuals differ from those taught using chalk and talk teaching process.* Thus the participants reported that their level of understanding concepts taught in class is high when they are being taught with audio-visuals compared to those taught without audio-visuals. Based on this finding, it is recommended that audio visual aids should be incorporated into the teaching learning process as this will aid with comprehension. The results are consistent with findings of other scholars such as Akpan and Okoli (2017) who investigated the effect of the use of Audio visual Materials on students comprehension of Pupils in Ikwuano Abia State.

Results according to specific objective two: *To investigate the extent to which demonstration of students taught using audio-visuals aid differ from those taught using chalk and talk teaching process.*

Findings revealed that the students who were taught using audio-visuals reported significantly higher levels of demonstrations compared to students who were taught using chalk and talk. Based on these findings the researcher suggests that secondary school teachers should include audio-visual aids such as projectors and video clips in their lessons to enhance student's practical skills. The results are consistent with the findings of other scholars like Alseweed (2018) who assessed the impact of video tutorials on practical skills in science education.

Results according to specific objective three: *To determine the difference in ease of teaching with teachers who teach geography using audio-visual aids have from those who teach using chalk and talk.*

The results revealed that teachers who teach using audio-visual find it easier to teach compared to those who teach using chalk and talk. This indicates that based on the findings of the study ,participants reported they find it very easy to teach students using audio-visuals compared to those who teach without audio-visuals . Based on these findings, the researcher suggests that teachers should carry out digitalized lessons and school proprietors should provide teachers with the necessary equipment. These results are consistent with findings of a study by Topping et al. (2017) who found that teachers who utilized diverse audiovisual resources were more effective in meeting the learning preferences of their students, leading to improved academic performance.

Generally from these results it was recommended that;

Audiovisual materials for teaching of geography should be made adequately available in secondary schools;

There should be routine checks and maintenance of technological devices like computers in secondary schools in Cameroon;

Teachers should use various audio visual materials to meet different learning preferences and needs of the learners;

Seminars on the effective integration of some of these educational technologies should be organized at the beginning of each academic year.

Conclusion

The findings confirm that the use of audio-visual material is an effective method in improving the teaching and learning of geography in secondary schools. It was also confirmed that the comprehension and demonstration of students are more effective when students are taught with audio-visuals compared to non- audio –visuals. Also, it was discovered that teachers found it easier to teach using audio –visuals compared to non-audio visuals. While it is important to encourage the use of audio-visual materials in teaching and learning geography. It is equally important to consider the quality and how often audio-visual materials are being used.

Limitation and Recommendation

Commented [I18]: Recommendation and limitation are important to mention separately. Just my suggestion please.

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