The Effectiveness of Video Presentation Techniques on Learning of Grammatical Structures among Senior Secondary School Students in Sokoto State, Nigeria

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Abstract
This study investigated the effectiveness of video presentation techniques (VPT) on the learning grammatical structures among senior secondary school students of Sokoto State, Nigeria. The main objective was to find out whether presentation of grammar lessons in form of video activities would promote the learning of Noun, Adjectival and Adverbial Phrases among the senior secondary school students in the State. The population of the study was the senior secondary school students in Sokoto State. From this population, 400 SS I students were drawn from six senior secondary schools in the State as sample. The research was carried out using Quasi-experimental pre-test-posttest design where six groups were compared after pre-test, treatment and post-test were administered. Each of the grammatical structures – noun, adjectival and adverbial phrases – was presented to each of the experimental groups in series of lessons. Grammar Attainment Test was administered on both the experimental and control groups as pre-test and post-test. Four null hypotheses were tested at 0.05 level of significance. Statistical procedures of mean, standard deviation, t-test and Analysis of Variance (ANOVA) were used in testing the hypotheses. All the four null hypotheses were rejected. The findings of the study showed that the treatments of video presentations of grammar lessons received by the experimental groups were superior to the traditional methods treatment received by the control groups because the experimental groups showed greater gains in the learning of adjectival, adverbial and noun phrases. In light of the findings, it was recommended, among other things, that teachers of English language should reduce their dependence on traditional methods as means of presenting grammar lessons. Instead, a multi-modal approach particularly via video should be frequently used.

Keywords: VTR, MT, Noun Phrase, Adjectival Phrase, Adverbial Phrase

1. Introduction
According to Larsen-Freeman (1997), grammar is often misunderstood in the field of language teaching. The misconception lies in the view that grammar is a collection of arbitrary rules about static structures in the language. According to Baron (2003), teachers have been complaining about their students' grammar ever since there have been teachers, students and grammar. This is probably because grammatical mistakes are easy targets for critics of students' writing and speech. Some teachers complain that there was not enough support for grammar instruction in their schools. Others complain that their students had learned so little grammar in the early grades that the post-primary schools could not be expected to bring them up to speed, Baron concludes. The manner the grammar lesson is presented may contribute significantly to the source of the complaint above. For example, in most classrooms in Nigeria, and in many other places where English is learnt as a second language, grammar teaching is approached from the traditional way. Purser cited in Nancy (1997) defines traditional grammar teaching as a method that “have students memorize abstract definitions, do fill-in-the blank exercises; label, parse and diagram sentences and find and fix errors”. Uchibori, Chujo and Hasegawa (2006) observe that Japanese university students are weary of taking grammar classes with rote memorization and drills which they find both boring and difficult to understand or appreciate. Alternative approach to grammar teaching as presented by Ellis (2003) suggests that grammar teaching needs to emphasize awareness of how grammatical features work rather than mastery. Learners who are aware of a grammatical structure, he argues, are more likely to notice it when they subsequently encounter it. Thus, awareness can facilitate and trigger learning; it is a crutch that helps learners walk until they can do so by themselves, he concludes.

According to Ellis (1993), current second language acquisition theories view grammar learning as best accomplished when learners are primarily focused on meaning rather than form, but some attention to form is necessary for learning to take place. He therefore suggests that grammar teaching should focus on consciousness raising rather than on the demand for accurate production. In support of this assertion is VanPatten and Cardierno's (1993) finding that students' experience with processing input data is more effective than giving students a grammatical explanation followed by output practice.
What the exposition above simply means is that grammar teaching should be approached by addressing the place of grammar in the communicative competence of the learners, which focused on language use in social context, instead of the current emphasis on linguistic competence which focused on knowledge of language form. There are two ways teachers can develop awareness of a grammatical structure. One way, of course, is simply to tell the students how it works. This is the traditional way. An alternative way, which is more promising, is to use consciousness-raising tasks as suggested by Ellis cited above. Consciousness-raising tasks are tasks that provide students with "data" about how a particular grammatical structure works and help them to work out the rule for themselves. Such tasks make the students much less dependent on the teacher. This study on the effectiveness of presenting grammar lesson via video technique was conceived on this background of conscious-raising as an alternative approach to traditional method of presenting grammar lesson.

2. Objectives of the Research
The main objective of this study is to find out whether presentation of grammar lessons in form of video activities would promote the learning and use of some grammatical structures among the senior secondary school students in Sokoto State, Nigeria. Specifically, the study intends to find out whether:

a. senior secondary school students would acquire the knowledge of adjectival, adverbial and noun phrases better if the lessons are presented through Video Presentation Technique (VTR) instead of Traditional Method (MT).

b. senior secondary school students would acquire the knowledge of Adjectival phrase if the lessons are presented through video based activities

c. senior secondary school students would acquire the knowledge of noun phrase if the lessons are presented through video based activities

d. senior secondary school students would acquire the knowledge of Adverbial Phrase if the lessons are presented through video based activities

3. Research Questions
In order to realize the objectives stated above, the following questions would be addressed by the study:

1. Will there be difference in the post-test scores of the experimental and control groups on the adjectival, adverbial and noun phrases’ items?
2. Will there be difference in the pre-test and post-test scores of the experimental groups in items on adjectival phrase?
3. Will there be difference in the pre-test and post-test scores of the experimental groups in items on Noun phrase?
4. Will there be difference in the pre-test and post-test scores of the experimental groups in items on Adverbial phrase?

4. Research Hypotheses
The following null hypotheses were tested during the study:

1. There will be no statistically significant difference between the post-test scores of the experimental and control groups on the adjectival, adverbial and noun phrases’ items.
2. There will be no statistically significant difference in the pre-test and post-test scores of the experimental groups in items on adjectival phrase
3. There will be no statistically significant difference in the pre-test and post-test scores of the experimental groups in items on Noun phrase
4. There will be no statistically significant difference in the pre-test and post-test scores of the experimental groups in items on Adverbial phrase

5. Review of Related Literature
It is generally believed that modern literacy is marked by three features. First, it includes not only text but also image and screen literacy. Second, it involves navigating information and assembling knowledge from fragments. Third, user-friendly technology when integrated effectively into a learning environment helps engage students in the “active” process of learning (Oblinger, Barone & Hawkins, 2001).

Zemsky and Massey (2004) reported that students desire e-learning technologies for three reasons. They want to be connected to one another; be entertained through games, music, and movies; and present themselves and their work. Hence, Leonard, Marshall, Shelby, Stephanie and John (2006) opine that students now arrive on campus with greater abilities in online learning than previous generations and with the expectation of learning in an on-demand manner. Even more intriguing, these students’ brains are likely to have been shaped by very visual,
rapid movement, hypertexted environments. The above opinions suggest that we cannot do without Information and Communication Technologies in our classrooms.

In more advanced countries like in United States of America and Great Britain, video games have been used to great advantage in language learning. According to Foreman (2003), games expose players to deeply engaging, visually dynamic, rapidly paced, and highly gratifying pictorial experiences that make almost any sort of conventional schoolwork (especially when mediated by a lecture or text) seem boring by comparison. Essberger (2000) stresses that the closeness to language reality couple with visual as well as audible cues, made video an excellent medium for use in the language classroom. It can be used in many different ways and for teaching or revising many different language points. He thus suggests feature films (fiction), cartoons, documentaries, news/weather, interviews, games shows (often based on words) and ads/commercials as possible authentic videos that could be used in the classroom. He recommends them because they are realistic, interesting, up-to-date, original and inexpensive.

Furmanovsky (1997) suggests on how various video series could be put to use. On the use of documentaries, he suggests that only those that are visually dense and/or have English captions should be used. Interviews he says should be edited and the total length should be less than a third of class time. He cautions that entire movies should not be shown in class, but carefully selected films with a strong cultural or historical content can be watched by students for homework and can be accompanied by "movie note taking" diaries in which students take notes about what they have learned, both in terms of content and language.

According to Griffin (2008), our goal as educators is to get students energized and engaged in hands-on learning experiences; and the more interactive a lesson is, the more students will enjoy, learn and retain information from it. Video is clearly an instructional medium that generates excitement. Using sight and sound, video is the perfect medium for students who are auditory or visual learners. Video taps into emotions which stimulate and captivate students, and it provides an innovative and effective means for educators to address the curricular concepts. He thus suggests that video should be used as a facet of instruction along with any other resource material a teacher has available to him for teaching a given topic and one should prepare for the use of a video in the classroom the very same way one would with any other teaching aid.

Some scholars have conducted researches on the effect of video on learning and have got encouraging results. For example, Gerling (1994) found that videotaped clips of public service announcements and commercials from Spanish language television provided interesting material for students to work with in the Spanish foreign language classroom. Similarly, Barnes (1997) reported a study conducted by the Teacher’s College at Columbia University and WNET Thirteen’s staff. The goal of the study was to determine the impact of Instructional Television (ITV) on students’ learning over a six-week period. A summary of the findings concluded the following:

- ITV students outperformed non-ITV students on tests.
- ITV students scored higher on writing assignments.
- ITV students used more figurative language than non-ITV students.
- ITV students applied more varied and creative approaches to problem solving.
- ITV students were more active in classroom discussions.
- ITV students learn better when more ITV is used.

These positions and research findings are mostly based outside Nigeria, hence, the researcher’s interest to carryout this research to complement efforts in the area of learning through video in Nigeria.

6. Research Methodology

The research was carried out using Quasi-experimental pre-post test design. Quasi experimental design was selected because it allowed for random assignment of treatment to different groups while the individuals in the groups receiving various treatments could be compared afterwards (Fraenkel & Wallen, 2000). Six groups of subjects approximately the same in language ability were compared before and after exposure to treatment. Each group was randomly selected in the principle of intact class into experimental and control group. Three of the groups were exposed to Video Presentation Technique (VPT) treatment while three groups used as control groups were exposed to Traditional Method (MT). The groups were assigned as below:

- Group 1 Experimental: video + Adjectival Phrase + Pre-test + Post-test
- Group 2 Experimental: video + Noun Phrase + Pre-test + Post-test
- Group 3 Experimental: video + Adverbial Phrase + Pre-test + Post-test
- Group 4 Control: Traditional Method + Adjectival Phrase + Pre-test + Post-test
- Group 5 Control: Traditional Method + Adverbial Phrase + Pre-test + Post-test
- Group 6 Control: Traditional Method + Noun Phrase + Pre-test + Post-test

The population of the study was all the senior secondary school students in Sokoto State, Nigeria. From this population, the SS1 students were used for the study. This class of students was focused because they were
expected to learn the three grammatical structures under investigation at this level. The sample of the study was SS I students selected from six senior secondary schools in Sokoto State, Nigeria. Purposive sampling technique was used in selecting the schools to ensure the convenience of carrying out the teaching activities during the application of the treatments. One intact class from the six schools were randomly selected and assigned as experimental and control groups respectively.

7. The Treatments
The treatments consisted of series of lesson presentations using video materials aimed at presenting grammar lessons interactively and communicatively. Each of the video materials lasted between 5-10 minutes. This enabled the investigator to playback the material as many times as possible in a class session. Each of the grammatical structures: noun, adjectival and adverbial phrases, was presented to each of the experimental group in series of 5 lessons. Each lesson lasted for 40 minutes, the normal lesson duration in most senior secondary schools in Sokoto State. Consequently, the treatment lasted 30 lessons and approximately 1200 minutes (20 hours) over a period of eight weeks. This was preceded by one week of administering pre-test and followed by one week of administering post-test. The control groups were taught the same structures but through traditional method of definition and drills.

The teaching sequence was guided by a lesson plan consisting of classroom activities that involved the subjects in exploring the grammatical structures under investigation captured in video materials and utilising them in actual contexts. The subjects were led to explore the presented materials first for information, and then they focused on the grammatical structures discussed in context. This sequence enabled the subjects to appreciate those grammatical structures as meaningful units which is hoped will assist the learning and consequent application of the grammatical structures in the right contexts.

8. Grammar Attainment Test (GAT)
The measuring instrument for the study is Grammar Attainment Test. It consisted of three sub-tests each addressing the three grammatical structures taught. Each sub-test consisted items which focused on identification of the grammatical structures under consideration in context, determining structural relationships and application of the structures in the right contexts. The items were adapted from series of grammar test items from BBC/British Council Teaching website. The items were modified to suit local contexts and environment.

9. Validity of the Instrument
Both the content and face validities of the Grammar Attainment Test were determined by experts and colleagues in the Faculty of Education and Extension Services and the Department of Modern European Languages both of Usmanu Danfodiyo University, Sokoto, Nigeria. The purpose was to identify items that were not properly constructed and those that did not measure the knowledge desired. The researcher was concerned about the content validity because according to Van Dalen (1979), content validity is most widely used in achievement test. Observations and suggestions offered by the experts were used to reconstruct the items while the unwanted items were removed. The lesson plans were subjected to peer-group review. This enabled the researcher to incorporate suggestions of other colleagues, particularly in respect of alternative classroom activities that would help realise the objectives of the research.

10. Reliability of the Instrument
To determine the reliability of the instruments, the 3 batteries of the GAT were administered on similar population using test-retest method. SS I students of Sani Dingyadi Unity Secondary School, Sokoto was used for the pilot testing of the instruments. The instruments were administered on 57 students twice at two weeks interval. The correlation co-efficient of the two scores obtained for each of the subset was calculated using Pearson Product-Movement Correlation. Correlation reliability of 0.78, 0.86 and 0.88 were obtained for Adjectival, Adverbial and Noun Phrases sub-tests respectively.

11. Administration of Instruments
The administration of the pre-test was carried out one week prior to the commencement of the actual research on both the experimental and control groups. Appropriate battery of the GAT was administered on each of the experimental and control groups. This was to enable the researcher compare each of the experimental group with the appropriate data of the control group. Immediately after the teaching session (after the eight weeks of teaching) the same batteries of test were administered on the experimental and control groups.

The teaching was done with the help of multimedia projector and an amplified audio facility. This ensured that mechanical noise did not constitute impediment to the classroom activities. The students sat in a horse shoe arrangement as opposed to the normal roll arrangement while the images were projected on the wall. This
ensured the visibility of all students. The horse shoe formation also facilitated easy group activities which featured greatly in the research.

12. Method of Data Analyses
The data collected were subjected to statistical analyses to test the research hypotheses. Frequency table, mean and standard deviation were used for descriptive information. The mean scores and standard deviations of the scores of subjects’ that learnt through VTR on the measuring instruments were computed and compared to the mean scores and standard deviation of those that learnt through traditional method. To test whether the observed differences were significant enough to make generalisation, Analysis of Variance (ANOVA) was used to test null hypothesis 1 while t-test was used to test the null hypotheses 2 to 4.

13. The Result
The general observations after analysis revealed that both the Traditional Method (MT) and Video Presentation Methods (VPT) brought about learning of the structures under consideration. However, the Video Presentation Technique recorded higher yield as could be observed in the testing of Hypothesis 1.

HO₁: There will be no significant difference between the post-test scores of the experimental and control groups on the adjectival, adverbial and noun phrases’ items.

This hypothesis seeks to establish whether the Traditional Method (MT) and Video Presentation Method (VPT) used in the study make equal impact on the learning of phrases. This will pave way for further analysis of the influence of VPT on individual phrase type as examined in the remaining hypotheses. Table 1 contains the descriptive data while Table 2 contains the ANOVA results in respect of Hypothesis 1.

Table 1: Posttest Mean Scores of Control and Experimental Groups

<table>
<thead>
<tr>
<th>Structures</th>
<th>Control Groups</th>
<th>Experimental Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. MEAN SD</td>
<td>NO. MEAN SD</td>
<td></td>
</tr>
<tr>
<td>Adjectival Phrase</td>
<td>46 3.44 2.66</td>
<td>35 13.71 8.10</td>
</tr>
<tr>
<td>Adverbial Phrase</td>
<td>59 3.15 3.16</td>
<td>36 8.89 4.26</td>
</tr>
<tr>
<td>Noun Phrase</td>
<td>56 3.84 3.25</td>
<td>37 10.49 6.03</td>
</tr>
</tbody>
</table>

From Table 1, 46 and 35 students were used in the Adjectival Phrase subgroups for control and experimental groups respectively. The mean scores for the two were 3.44 and 13.71 for control and experimental groups respectively. The standard deviation for control group was 2.66 while that of experimental group was 8.10. For the Adverbial Phrase subgroups, the numbers of participants were 59 for control group and 36 for experimental group. The control group recorded a mean score of 3.15 and a standard deviation of 3.16 while the experimental group had a mean score of 8.89 and standard deviation of 4.26. In Noun Phrase subgroup, there were 56 students in the control group and 37 in experimental group. The mean score for the control group was 3.84 and a standard deviation of 3.25; while that of experimental group was 10.49 with a standard deviation of 6.03. The differences observed in the mean scores were further subjected to the ANOVA test to find if they are significant. The result is contained in Table 2.

Table 2: ANOVA Results of Posttest Scores of Experimental and Control Groups on Knowledge of Phrases

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>Cal. F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4104.815</td>
<td>5</td>
<td>820.963</td>
<td>38.212</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5650.427</td>
<td>263</td>
<td>21.485</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9755.242</td>
<td>268</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ANOVA result in Table 2 showed that the sum of squares between groups was 4104.815 with a degree of freedom 5. The sum of squares within groups on the other hand was 5650.427 with 263 degree of freedom. The F calculated was 38.212 and was significant at .000. The null hypothesis therefore is rejected. This shows that the difference observed in the mean scores in the two experimental and control group is significant to draw the conclusion that VPT treatment provided to experimental groups is more effective in learning the different phrases than Traditional Method.

HO₂: There will be no statistically significant difference in the pretest and post-test scores of the experimental groups in items on adjectival phrase

Table 3: T-test of Pretest and Posttest Scores of Experimental Group Exposed to Video Treatments in Items on Adjectival Phrase

<table>
<thead>
<tr>
<th>Structures</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-calculated</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest Scores</td>
<td>34</td>
<td>13.77</td>
<td>8.22</td>
<td>72</td>
<td>7.44</td>
<td>.000</td>
</tr>
<tr>
<td>Pretest Scores</td>
<td>40</td>
<td>2.95</td>
<td>2.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There will be no statistically significant difference in the pretest and post-test scores of the experimental group on the other hand was 8.22 with a standard deviation of 8.22. The calculated t-test was found significant thus the Ho2 was rejected. This means that the difference observed in the mean scores of pretest and posttest is as a result the treatment of VPT.  

HO3: There will be no statistically significant difference in the pretest and post-test scores of the experimental groups in items on Noun Phrase  

Table 4 presents the results of the students that participated in the Noun Phrase subtest. The table shows that 50 students wrote the pre-test while 37 students wrote the post-test. The mean scores of the pre-test is 2.16 with a standard deviation of 1.93 while the mean score of the post-test was 10.49 with a standard deviation of 6.03. The t-calculated is 9.17 while the degree of freedom is 85. The t-value obtained is significant to reject Ho3. Thus is concluded that the experimental group exposed to Noun Phrase through VPT gained more knowledge as a result of the treatment.  

HO4: There will be no statistically significant difference in the pretest and post-test scores of the experimental groups in items on Adverbial phrase  

Table 5 presents the results of the students that participated in the Adverbial Phrase subtest during the posttest while 40 students wrote the pretest. The mean scores of the pretest was 2.95 with a standard deviation of 2.26. The mean scores of the structural concepts taught in the experiment. The findings also concur with Griffin (2008) view that the multi-modal approach via the presentations through video materials made significant gains in their understanding of the grammatical concepts taught in the experiment. The findings also concur with Griffin (2008) view that the more interactive a lesson is, the more students will enjoy, learn and retain information from it. The subjects that took part in the VPT were very enthusiastic and receptive during lesson presentations and the results obtained
justified the much difference recorded between the performances of those that were exposed to the phrases through the traditional method.

15. Recommendations
Following the above findings, the following recommendations have been offered to promote the teaching of grammar in secondary schools in Nigeria and elsewhere that share Nigeria experience:

1. School proprietors to provide the right educational equipment and gadgets in their schools in order to derive maximum performance from both the teachers and the students.

2. English language teachers should reduce their dependence on Traditional Method as means of presenting grammar lessons. Instead, they should use multi-modal approach which offers students variety of classroom experience.

3. There is a need for retraining programme for teachers of English language to avail them with new techniques that have been found to work in the teaching and learning of English language.

4. There is a need to redesign English language education curriculum to inject topics that will prepare the would-be English language teachers for challenges of dealing with emerging ICT issues in language teaching.

5. It is recommended that viewing centres should be provided in schools where educative programmes that can promote language learning are viewed.

6. Writers should package English language publications in video forms. This will provide alternative way to regular book format which students are becoming too lazy to read.

References

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