

## Puzzle Games and English as a Second Language Students' Achievement in Grammar in Makurdi Local Government Area of Benue State, Nigeria

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### ABSTRACT

This study investigated the effect of using puzzle games strategy in improving Upper Basic One (Junior Secondary School One) students' achievement in English language grammar in Makurdi Local Government Area of Benue State Nigeria. The study was guided by a research question, and a null hypothesis. The study adopted the quasi-experimental research design of pre-test and post-test of non-equivalent experimental groups. A sample of 112 Upper Basic One students was sampled from two secondary schools in the study area using purposive and simple random sampling techniques. The schools were assigned to two intact classes that were taught English grammar using puzzle-game strategy and the conventional method. Data were collected using English Grammar Achievement Test (EGAT) and analysed using mean and standard deviation to answer the research question. Analysis of Covariance (ANCOVA) was used to test the null hypothesis at 0.05 level of significance. The finding revealed that there was a significant difference in the mean English Grammar Achievement Test (EGAT) scores of students taught English grammar using puzzle-games strategy and those taught using the conventional method. The study therefore recommended that puzzle-games strategy should be incorporated into the English language curriculum programme for grammar instruction. Workshops and seminars should also be organised for English language teachers on the importance of games strategy in improving students' achievement in English grammar.

**Keywords:** Puzzle-games, English grammar, English as a second language, achievement.

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#### Aims Research Journal Reference Format:

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## 1. INTRODUCTION

English language is the window through which Nigeria is connected to the world. Therefore, it is crucial to teach the grammar of the language effectively in order for the learners to negotiate their ways into proficiency in the use of the language across different facets of life. Widodo (2006) posits that a mastery of English grammar is a springboard to success and proficiency in learning the language. The knowledge of grammar of a language plays a significant role in the learning and effective use of a second language. The use of subject-verb agreement, according to the National Teachers Institute (NTI, 2006), is to achieve some conversational fits. This therefore informs the varying rationales behind the teaching and process of English grammar (Woodney, 2013).

According to Williams (2004), English grammar is the guideline that stipulates the outlook of English. These guidelines are generic in the sense that they cover the rules governing the articulation of speech sounds (phonology), word formation (morphology), sentence formation (syntax) and attaching meaning to words or expressions (semantics). Suffice it to say that English grammar is complex and it is expected that the learners use it correctly, based on the component structures of the language. This means that the grammar of a language is a compass or road map that is tilted towards the appropriateness in language usage. Austard (2009) asserts that English grammar is simply the use of English as accepted by the native speakers. This shows that whatever is considered authentic and appropriate in English by the native speakers is indeed explicitly appropriate without doubt. Opega (2006) posits that the English grammar as opined by the traditional grammarians involves the eight parts of speech, concord, tenses and appropriateness in the language use.

In spite of the significant role of English grammar to students' overall achievement in English language, gaining proficiency in the use of the language like native speakers has been a difficult task. Oyetunde (2013) opines that one big problem facing Nigerian education today is helping students to gain proficiency in English language especially in the grammar component. This may be due to faulty methods of teaching that are counter to the recommended, and research-proven best practices that put the interest and active participation of the learners first in the learning process (Muodumogu & Unwaha 2013). This worry and concern to improve students' achievement in line with the recommendation of Muodumogu and Unwaha (2013) necessitated this study. According to Opega (2006), the old and traditional strategies of teaching English grammar like the Direct Method (DM) and Grammar Translation Method (GTM) among others, are excessively boring.

On this, Oyetunde (2013) suggests some instructional focus in grammar instruction to include the ability to correctly recognise and use word classes, sentence parts, tenses, and demonstrate an understanding of the principles of subject-verb agreement. It is therefore, the interest of this study to teach grammar of the English language using interesting students' centred-oriented puzzle games strategy at the expense of the conventional method of grammar instruction.

Over the years, the conventional strategy of teaching English skills and components especially grammar has reign supreme. Oyetunde (2009) sees the conventional method of instruction as the product of traditional approach that exposes learners passively to language skills. Offorma (2007) earlier maintains that conventional instruction is an activity of teaching and learning where learners' interest, cognitive level and readiness to learn language skills are not activated. This therefore explains why many students even in institutions of higher learning are very poor in linguistic aptitude (Universal Basic Education Commission, 2010),

Puzzle-games strategy is one of the fascinating language activities that make language classes interesting and effective. According to Alemi (2010) and Rahnawati (2013), games are very effective in teaching the grammar aspects of the English language. Games also offer new dimension in enhancing students' interest and achievement in learning. Njoku (2008) asserts that games strategy is one activity-oriented strategy that helps to attain maximum self-development through practical learning and learners' active participation. This implies that games strategy enables learners to participate actively in the teaching and learning process for the realisation of the lesson goals or objectives.

Davis, Shepherd and Zwenfaloper (2009) believe that game activities in English language learning encourage group or collaborative learning thus making learning a fun-filled exercise. The fun involved in the use of games may stimulate students' interest and boost students' achievement and gain proficiency in English grammar. El-Shamy (2001) defines games strategy as a competitive activity played according to rules within a given context. The zeal to win in such competition of learning process helps to boost both the interest and learning outcome of the competitors.

Pham (2007) reviews ten categories of language game instructions. These include, structured games (based on syntax instruction), vocabulary games, spelling games, pronunciation games, number games, listen and do games, writing games, miming and role play games, discussion and sorting games, and ordering and matching games. Puzzle game is one tool for teaching syntax of a language under the first category of games. Other instruction games may include scrabble and scramble, among others. This study therefore adopts the use of puzzle game strategy to enhance students' interest and achievement in English grammar.

Puzzle game, since the inception of its use in language instruction has achieved lots of successes in improving students' interest and achievement in learning. Hornby (2010) defines puzzle as an activity that is designed to test a person's knowledge, skill or intelligence. This implies that puzzle game enhances students' critical and analytical thinking skills to solve language problem or task. Jude (2016) found that the mean achievement scores of students in English vocabulary exposed to games instruction strategy were greater than the control groups taught using the conventional methods. Atawi (2011) affirms that puzzle game instruction is a significant strategy for enhancing students' achievement as compared to the conventional methods. The author asserts that puzzle game is an academic based strategy that empowers students in a language instruction classroom in various ways.

These may include the ability to acquire habits of collective decision making, achieve a high degree of interest, achieve durability in learning content and increase understanding as well as develop the learners' language skills effectively. Ukume, Ochogwu and Ejembi (2017) found in a study that students exposed to scramble and puzzle games achieved significantly higher than those exposed to the conventional method in vocabulary achievement. Puzzle game therefore takes the format of word search based on detection and cross word graphic design model.

Designing a puzzle game according to Atawi (2011) is a challenging experience. This is because students must develop the knowledge of the skills to be tested before the treatment. This study therefore taught students spellings, tenses, parts of speech and nominalization, using puzzle-games strategy of word-search model. This study therefore sought to investigate how puzzle games instructional strategy could have effect on students' achievement in English grammar.

### **1.1 Statement of the problem**

There has been a consistent decline in the performance of students in English language (West African Senior School Certificate Examination General Chief Examiner's Report, 2017). The Report revealed that only 49% of students passed English language. This trend has posed a lot of worries to language experts, the government, parents, curriculum planners and designers, teachers, researchers and students themselves.

Oyetunde (2013) observes that one of the big problems facing Nigerian education today is helping students to gain proficiency in English language skills especially in the component of grammar. The cause of this trend therefore may be due to faulty methods of English language instruction across all levels of Nigerian education especially at junior secondary schools where many of the teachers do not make use of innovative methods and strategies that are learners-centred

Puzzle games strategy is a language instruction tool that could boost students' interest, comprehension and achievement in English through critical and analytical thinking and cognitive skills. The problem of this study, posed as a question is, what would be the effect of puzzle games strategy on students' achievement in English grammar?

### **1.2 Research question**

This research question guided the study:

What is the difference in the mean scores of students taught English grammar using puzzle games strategy and those taught using the conventional method?

### **1.3 Statement of hypothesis**

This null hypothesis was formulated and tested at 0.05 level of significance.

There is no significant difference in the mean scores of students taught English grammar using puzzle games strategy and those taught using the conventional method.

## **2. RESEARCH METHOD**

One hundred and twelve (112) Upper Basic One students were sampled for the study using purposive and simple random sampling techniques. The students were sampled from two secondary schools in Makurdi metropolis. The schools were assigned and taught in intact classes based on puzzle and conventional methods. Quasi-experimental research design of pre-test and post-test of non randomised group was adopted. Data were collected using English Grammar Achievement Test (EGAT). Before the treatment both groups were given a pre-test.

Lesson plans on each of the strategies were given to the teachers (research assistants) who taught the various groups. The treatment lasted for four weeks. At the end of the treatment, the same test was administered on both groups as post-test. Students in both groups were taught grammar topics, tenses, spellings, nominalization, and parts of speech. These formed the achievement test. Data collected were analysed using mean and standard deviation to answer the research question while Analysis of Covariance (ANCOVA) was used to test the null hypothesis at 0.05 level of significance.

### 3. RESULTS

The data collected were analysed and interpreted according to the research question and hypothesis.

#### 3.1 Research question

What is the difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method?

**Table 1: Mean difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method.**

Group	N	Pre-test mean	Std. Deviation	Post test Mean	Std. Deviation
Puzzle games	60	11.83	3.57	24.78	4.79
Conventional method	52	11.12	2.80	10.73	2.89
<b>Mean difference</b>		<b>0.71</b>		<b>14.05</b>	

Table 1 shows the difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method. Students exposed to puzzle games strategy had a post test mean of 24.78 while those taught using the conventional method had a mean of 10.73. This gives a mean difference of 14.05 in favour of those exposed to puzzle games strategy.

#### 3.2 Hypothesis

There is no significant difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method.

**Table 2: ANCOVA for the significant difference in the mean English grammar achievement score of students taught English grammar using puzzle games strategy and Those taught using the conventional method.**

Source	Type III sum of squares	df	Mean square	F	p
Corrected model	5513.488 <sup>a</sup>	2	2756.744	170.343	.000
Intercept	2221.856	1	2221.856	137.291	.000
Pre	12.411	1	12.411	.767	.383
Strategy	5375.687	1	5375.687	332.171	.000
Error	1764.003	109	16.184		
Total	44617.000	112			
Corrected Total	7277.491	111			

Table 2 shows the significant difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method. The table gives  $F_{(2,109)} = 332.171$ , and  $p = 0.000$ . Since  $p$  is less than 0.05 (alpha level), the null hypothesis is rejected. This means that there is a significant difference in the mean English grammar achievement scores of students taught English grammar using puzzle games strategy and those taught using the conventional method.

#### 4. DISCUSSION

The discussion of finding on this study covers the use of puzzle games to improve students' achievement in English grammar based on the research question and null hypothesis. The finding revealed that there is a significant difference in the mean scores of students taught English grammar using puzzle games strategy and those taught using the conventional method in English grammar. The mean difference between the two instructional groups was in favour of the puzzle game strategy. This is because puzzle games strategy stimulates students' critical and analytical thinking skills to solve a language problem.

This finding is in agreement with the finding of Atawi (2011) who reported that there is significant effect of using word-search puzzle game on students' achievement in English vocabulary. The finding is also in consonance with the finding of Ukume, Ochogwu and Ejembi (2017) who proved in a study that students exposed to scramble and puzzle games significantly achieve higher than those exposed to the conventional strategy in English vocabulary. This therefore implies that puzzle game strategy is an effective language teaching activity for enhancing students' achievement in English grammar.

The finding also supports those of Alemi (2010) and Rahnwati (2013) whose submission is that games effectively enhance the teaching of English grammar. It is based on activities (Njoku, 2008) and gives ample room for collaborative learning (Davis, Shepherd & Zwenfaloper, 2009). The implication is that the use of games in teaching imbues in learners the ability to create activities that would enable them to understand what they have been taught in English grammar, or read from books. When learners engage in games activities they increase their achievement in English grammar.

The educational and instructional implication of the finding is that the process of acquiring proficiency in a second language like English grammar requires practical-based and proactive learning models like puzzle games to stimulate critical and analytical cognitive skills in the learners to solve language tasks.

## **5. CONCLUSION**

Based on the findings of the study, it was concluded that games strategy like puzzle is a modern language strategy for teaching and improving students' achievement in grammar instruction. Games therefore, motivate and build confidence in students to take up language tasks in order to significantly improve the learning outcomes.

### **5.1 Recommendations**

Based on the findings of this study, it was recommended that:

1. English language teachers should adopt the use of puzzle games strategy for improving students' self confidence and achievement in English grammar.
2. Curriculum planners and designers should work in collaboration with English language textbook designers and writers to incorporate game instructional activities into the students' English curriculum and scheme of work for secondary schools.
3. Parents should encourage their wards to play language development games like puzzle at home to enhance their spelling and word formation and retention skills.
4. English language teachers should also learn to adopt games strategy in teaching word recognition, spelling, vocabulary, and nominalisation skills to students.

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