



USE OF MASTERY LEARNING APPROACH AND ITS IMPACT ON STUDENTS' ATTITUDE AND PERFORMANCE IN GRAMMAR IN MAKURDI TOWNSHIP AREA OF BENUE STATE

Peter Terhemba Lanshima

Department of Arts and Social Sciences Education
Benue State University, Makurdi

Email: lanshimaterhemba@gmail.com

Titus Terver Udu

Department of Arts and Social Sciences Education
Benue State University, Makurdi

Email: goldudu2013@gmail.com

Abstract

The study investigated the use of mastery learning approach and its impact on SS II students' attitude and performance in grammar in Makurdi Township area of Benue State. The study was guided by two research questions and two null hypotheses. Pre-test and post-test quasi-experimental control group design was adopted by the study. The population of the study comprised 5,432 SS2 students across the 27 grant-aided secondary schools in Makurdi township area for 2023/2024 academic session. Using a multi-stage sampling technique, a sample size of 69 SS2 students was drawn from two grant-aided secondary schools in two intact classes and assigned to experimental and control groups. A researcher-made instruments titled "Students' Attitude towards Grammar Inventory" (SAGI) and "Students' Performance in Grammar Test" (SPGT) were used for data collection. The instruments were trial-tested and they yielded reliabilities of 0.91 (SAGI) using Cronbach Alpha and 0.88 (SPGT) respectively using Kuder-Richardson formula ($K-R_{21}$). Afterwards, a treatment was carried out and data collected were analysed using mean and standard deviation to answer the research questions and Analysis of Covariance (ANCOVA) was used to test the stated null hypotheses at 0,05 level of significance. The findings revealed a significant difference between the mean attitude ratings of students taught English grammar using mastery learning approach and those taught using the conventional strategy in favour of the experimental group exposed to mastery learning approach. In the same vein, the result of the study revealed a significant difference in the mean performance score of students taught English grammar using mastery learning approach and those taught using the conventional strategy in favour of the experimental strategy. Based on the findings, it was concluded that mastery learning approach is one among the effective approaches for enhancing students' attitude and performance in English grammar. Therefore, mastery learning approach was recommended for use by English language teachers in Nigeria for the teaching and learning of English grammar.

Keywords: *Mastery learning approach, attitude, performance, grammar*

Introduction

In Nigeria and other parts of the world where English Language is the language of education, learning the grammar of the language means being absorbed to think, synthesise, analyse, comprehend and evaluate ideas, thoughts, messages, spoken and written text in the language. Adejare (2022) affirms that a grammar of language is the whole system and structure of a language consisting of syntax (sentence level), morphology (word level), phonology (sound system), semantics (meaning) and pragmatism (language use). This means students who acquire the grammar of the English language can possibly do so many things academically and in the world of career after schooling.

English grammar is essential for effective communication. This is because grammar deals with the rules and principles of effective language use in English Language (Ezekulie & Maduabuchi, 2017). The role of the teacher is to guide students as second language learners of English to understand and use the language at word and sentence levels. Acheoah and Olalayo (2019) affirm that the purpose for teaching English grammar is because grammar is a set of rules that dictated how language works thereby making it easy to comprehend. Without proper grammar knowledge and skills in English one would have no idea how to speak or write in English. This means that English grammar helps students to make sense of their words and sentences because it dictates rules regarding how words and sentences are used (Adejare, 2022; Oluwole, 2019).

Students who have a good knowledge of English grammar can do so many things. They can recognise and identify parts of a sentence (subject and predicate), identify and use parts of speech correctly, and identify and apply rules of capitalisation and punctuation in writing among others (Ogwudile, 2022; Oboko, 2014). However, most students find the grammar of English Language difficult and complex to understand. Experience shows that they lack basic skills and the right attitude towards the grammar of English Language.

Learning English grammar can be challenging as there are so many exceptions to the

rules and non-native English speakers tend to be a little lazy with following the rules correctly such as the use of tenses, homophones, subject-verb agreement and the correct use of punctuations, intonation and stress patterns and tone while speaking. This could have negative effect on students' attitude and performance in English grammar. This consolidates the West African Examination Council Chief Examiners' reports (WAEC, 2019-2022). The reports revealed that students' weaknesses to English grammar include poor expression as a result of wrong concord, poor punctuation marks, wrong use of tenses, poor use of prepositions and articles as well as inability to construct simple and correct sentences and poor knowledge of the basic rules of English grammar. Most researchers (Acheoah & Olaleye, 2019) blame the poor performance of students towards English grammar on their poor attitude and teachers' methodologies in teaching English grammar.

Most teaching methods teachers of English employ in teaching English grammar do not engage and train students to learn the language at their own pace and they do not cater for the various needs of their students (Adejare, 2022; Ezekulie & Maduabuchi, 2019). In teaching English grammar, teachers need to bear in mind that language is acquired outside of the classroom and learned in the classroom. Thus, they need to create real life experiences in the classroom during their teaching session (WAEC, 2019-2022). This way, students' attitude and performance in English grammar would improve. This study therefore focuses on investigating the impact of mastery learning approach on students' attitude and performance in English grammar.

Mastery Learning Approach (MLA) is an instructional approach that requires students to fully comprehend a lesson before moving on to the next one. Reuben and Ogheneakoke (2021) noted that mastery learning approach is a teaching and learning process that allows students to progress at their own pace by ensuring a thorough understanding of the material they are exposed to. Students who are engaged to fully comprehend a lesson in grammar before moving to the next would do well in grammar tasks. This could be a step in enhancing students' attitude because MLA

encourages activity-based learning and multiple assessments with feedbacks to help students master learning material (Agborghoroma, 2014; Bergmann, 2016).

Research suggest that the MLA is an educational approach that was first introduced by educator Benjamin Bloom in 1968. It uses multi-tiered lessons, multiple assessments and the instructor feedback students to help them master what they learn (Reuben & Ogheneakoke, 2021). In a grammar lesson, students who learn through multiple assessments and giving of feedbacks would develop positive attitude towards the mastery of the lesson.

The goals of MLA focus as helping students' attention in class and building interpersonal standards of learning in them (Wambugu & Changeiywo, 2008). Students' whose attention are activated in a grammar lesson would stay learning to gain full understanding of the topic or lesson.

Teaching grammar using the Mastery Learning Approach (MLA) requires the teacher to take students cyclically through five stages: pre-assessment, instruction, formative assessment, correction of enrichment instruction and summative grading or assessment (Bergmann, 2016; Bean, 2016). This can be achieved by exposing students to a topic in grammar and afterwards allow them to take a written examination on what they have learnt. This process can be repeated until every student gain mastery of the topic.

Studies have proven the effectiveness of MLA in the teaching of Physics, Social Studies and Chemistry. Wambugu and Changeiywo (2008) found that students taught Physics using MLA achieved significantly better than those taught using the conventional method. The study of Agborghoroma (2014) consolidates the earlier finding that MLA has significant effect on students' achievement in integrated science. The study of Furo (2014) affirms that the achievement of students in Chemistry improved significantly as they were exposed to the mastery learning approach. In the same vein, Reuben and Ogheneakoke (2021) found that students taught Social Studies using mastery learning performed significantly better than those exposed to the

conventional strategy.

The Mastery Learning Approach (MLA) has also been found to have impact on psychological variables such as students' attitude, interest and self-esteem. Majid, Shekari and Keshani (2010) found that mastery learning significantly increase positive changes in attitude of weak students in Chemistry. The study of Ihendimihu (2020) agrees with the earlier study that there was a significant effect of mastery learning instructional approach on students' retention and attitude in Mathematics. The focus of this study is to find out the impact of MLA on students' attitude and performance in English grammar.

Attitude is a psychological variable that describes the positive or negative feelings of likeness or dislikeness of students towards learning and using English grammar. John, Habil and Rehema (2015) believed that attitude denotes interest or feeling toward something, subject, activity, belief or practice. Students can exhibit positive or negative attitude towards English grammar. The type of attitude students show towards English grammar lesson could have corresponding impact on their performance.

Performance academically means learning outcome or feedback on how best a concept is taught and learnt. Bui and Eui (2017) affirm that academic performance is the cognitive representation in scores or grades. It is how well a students does in school academically based on grades, scores, ratings and remarks cognitively. Students' academic performance in English grammar is poor (WAEC, 2019). Consequently, language teachers need to encourage active participation and practices in grammar lesson so as to improve students' learning outcome. It is against this background that this study investigated the impact of mastery learning approach on senior secondary two students' attitude and performance in English grammar in Makurdi township area of Benue State.

Statement of the Problem

In Nigeria, the purpose for teaching English grammar in English curriculum for senior secondary school students is to equip students to be able to think, synthesise, analyse, comprehend and evaluate ideas in English Language as the

language of education in Nigeria. This is because having the knowledge of English grammar means ability to use the language at word and sentence levels. However, most senior secondary school students in Makurdi Township are unable to use English Language effectively, fluently, coherently and correctly at word and sentence levels. This is because their spoken and written grammar are characterised by poor expressions as a result of wrong concord, tenses, use of prepositions and their inability to construct simple and correct sentences (WAEC, 2019 Chief Examiner's report). Language researchers such as Udu (2017) blamed this among others on dominance of mother-tongue, inadequate qualified teacher of English language, negative attitudes of students and teachers' methodologies of teaching English grammar such as the conventional method that does not engage students to use the English Language in and outside the classroom freely. This could affect students' attitude to and performance in English grammar. It is on this assumption that the problem of this study posed as question was, What would be the impact of mastery learning approach on SS2 students' attitude and performance in English grammar?

Research Questions

Two research questions were raised to guide the study. These include:

1. What is the difference between the mean attitude ratings in English grammar of students taught English grammar using Mastery Learning Approach (MLA) and those taught using the conventional strategy?
2. What would be the difference in the mean performance scores of students taught English grammar using mastery learning approach (MLA) and those taught using the conventional strategy?

Hypotheses

Two null hypotheses were formulated and tested in the study. These include:

1. There is no significant difference between the mean attitude ratings in English grammar of students taught English grammar using mastery learning approach (MLA) and those

taught using the conventional strategy.

2. There is no significant difference in the mean performance scores of students taught English grammar using mastery learning approach (MLA) and those taught using the conventional strategy.

Research Method

The study adopted a pre-test, post-test quasi-experimental control group design. According to Emaikwu (2019), quasi-experimental design allows for the use of intact classes and the incorporation of a treatment into an already existing teaching programme. In the same vein, this study was designed to investigate the use of mastery learning approach on students' attitude and performance in grammar using two intact classes drawn from two schools. One intact class was assigned to the experimental group (MLA) while the other was assigned to the control group (conventional strategy). The population comprised 5,432 SS2 students in Makurdi Township across the 27 grant-aided secondary schools in the area. A sample of 69 SS2 students was drawn from two schools and assigned to two intact SS2 classes using multi-stage sampling technique. The experimental group was taught using mastery learning approach (MLA) while the control group was exposed to the conventional strategy. Data collection in the study were made using two researcher's designed instruments titled Students' Attitude towards Grammar Inventory (SAGI) and Students' Performance in Grammar Test (SPGT). The SAGI was an instrument with 30 personalised positive and negative statements on students' attitude towards grammar. The four point Likert Scale of Strongly Agree (SA = 4), Agree (A = 3), Disagree (D = 2) and Strongly Disagree (SD = 1) was adopted. The SPGT on the other hand was 30 multiple choice questions on English grammar drawn from SS 2 students' English language curriculum content. Students were asked to answer all the questions by picking the most suitable option from the list of options lettered A-D in each of the questions 1-30. Each correct answer scores 1 mark. The instruments were validated and trial tested. While the SAGI yielded a reliability of 0.91 using Cronbach Alpha, the SPGT yielded a reliability of 0.88

using Kuder-Richardson formula (K-R₂₁). Afterwards, a treatment was carried out and data collected were analysed using mean and standard

deviation to answer the research questions and Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Research Question One

What is the difference between the mean attitude ratings in English grammar of students taught English grammar using mastery learning approach and those taught using the conventional strategy?

Table 1: Mean and Standard Deviation for Attitude Ratings of Students in English Grammar.

Group	N	Pre-test Mean	Std. Dev.	Post-test Mean	Std. Dev.	Mean Gain
Experimental	37	34.74	2.46	67.47	3.00	32.73
Control	32	35.88	3.00	38.55	2.62	2.67
Total/Mean Difference	67	1.14		28.92		30.06

Table 1 shows the pre-test attitude mean ratings of experimental group as 34.74 with a standard deviation value of 2.46, while the post-test mean is 67.47 with standard deviation of 3.00. Students taught using the mastery learning approach have the mean gain of 32.73. The table further reveals that the pre-test attitude mean ratings of students in the control group exposed to the conventional

strategy is 35.88 with a standard deviation of 3.00, while the group has a post-test mean attitude ratings of 38.55 with standard deviation of 2.62 with a mean gain of 2.67. The mean difference of 30.06 was in favour of the experimental group taught English grammar using mastery learning approach.

Research Question Two

What would be the difference in the mean performance scores of students taught English grammar using mastery learning approach (MLA) and those taught using the conventional strategy?

Table 2: Mean and Standard Deviation for Performance Scores of Students in English Grammar.

Group	N	Pre-test Mean	Std. Dev.	Post-test Mean	Std. Dev.	Mean Gain
Experimental	37	29.81	1.28	58.69	2.00	32.73
Control	32	30.03	1.04	34.56	2.42	2.67
Total/Mean Difference	69	0.22		24.13		24.35

Table 2 shows the pre-test mean performance score of students taught English grammar using mastery learning approach (MLA) as 29.81 with standard deviation of 1.28, while the post-test score of 58.69 with a standard deviation of 2.00. The control group had a pre-test mean score of

30.03 with a standard deviation of 1.04, while the post-test score was 34.56 with standard deviation of 2.42. The mean difference of 24.35 was in favour of students taught English grammar using the mastery learning approach.

Hypotheses Testing

Hypotheses One

There is no significant difference between the mean attitude ratings in English grammar of students taught English grammar using mastery learning approach and those taught using the conventional strategy.

Table 3: ANCOVA Test for Attitude Ratings of Students.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Est. Squared
Corrected Model	52216.322 ^a	2	26108.161	475.789	.000	.881
Intercept	16274.561	1	16274.561	296.584	.000	.697
Attitude Pre-test	24608.133	1	24608.133	448.453	.000	.777
Group	29311.752	1	29311.752	534.170	.000	.805
Error	7078.671	66	54.873			
Total	430189.00	69				
Corrected Total	59294.992	68				

Table 3 shows $F(2,69) = 534.170$, $df = 2$ and $p = 0.00$. This means that the p-value is less than the alpha level ($P=0.00 < 0.005$). The null hypothesis is therefore rejected. This implies that there is a significant difference between the mean attitude

ratings in English grammar of students taught English grammar using mastery learning approach and those taught using the conventional strategy in favour of those taught using the mastery learning approach.

Hypothesis Two

There is no significant difference in the mean performance scores of students taught English grammar using mastery learning approach and those taught using the conventional strategy.

Table 4: ANCOVA Test for Performance Scores of Students.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Est. Squared
Corrected Model	113.584 ^a	1	56.792	850.646	.000	.930
Intercept	24.303	1	24.303	364.017	.000	.738
Pre-test	15.077	1	15.077	225.833		.636
Group	86.929	1	86.929	1302.051	.000	.910
Error	8.612	66	.067			
Total	1083.343	69				
Corrected Total	122.196	68				

Table 4 shows $F(2,68) = 1302.057$, $df = 2$ and p -value = 0.00. Since the p -value is less than the alpha level ($p = 0.00 < 0.05$), the null hypothesis is rejected. This implies that there is a significant difference in the mean performance scores of students taught English grammar using mastery learning approach and those taught using the conventional strategy in favour of mastery learning approach.

Discussion

The discussion of findings of the study was based on the two research questions and two hypotheses analysed and interpreted.

The finding based on research question one and hypothesis one revealed a significant difference between the mean attitude ratings of students taught English grammar using mastery learning approach and those taught using the conventional strategy. The mean difference was in favour of those taught using mastery learning approach. This means that mastery learning approach is more effective in teaching English grammar than the conventional strategy. This is because mastery learning approach engages students to comprehend a topic and master its application before moving onto another. It encourages series of feedbacks on assessments to develop students' expressive abilities. This practice could have affected students' attitude ratings in grammar significantly.

The finding affirms the report of Majid, Shekari and Kashani (2010) who found that mastery learning significantly increases positive change in attitude of weak students in Chemistry. The result also agrees with Ihendinihu (2020) who found a significant effect of mastering learning instructional approach on students' retention and attitude in Mathematics. The consistency in the reports based on the effect of mastery learning approach is because it encourages activity-based learning followed with frequent assessments and feedbacks on a topic to enable students comprehend a topic or lesson effectively before moving to another.

The finding based on research question two and hypothesis revealed a significant difference in the mean performance scores of students' taught English grammar using mastery learning

approach and those taught using the conventional strategy. The mean difference was in favour of the experimental group taught using mastery learning approach. This means that students taught using MLA performed better and higher in English grammar than those taught using the conventional strategy. This result is informed by the comprehension driven activity-based teaching and learning process encouraged by mastery learning approach.

The finding is in agreement with Wambugu and Changeiyan (2008) who reported that students taught Physics using MLA achieved significantly better than those taught using the conventional method. The finding also validates the finding of Agboghroma (2014) and that of Furo (2014) that mastery learning approach has significant effect on students' achievement in integrated science and Chemistry. The result of the finding is also in consonance with Reuben and Ogheneakoke (2021) who found that students taught Social studies using mastery learning performed significantly better than those exposed to the conventional strategy. The consistent impact of MLA in the teaching and learning of integrated science, Chemistry, Social Studies and English grammar is because teaching students to master a lesson before moving onto another is a worthwhile activity.

Conclusion

Based on the findings of this study, it was concluded that mastery learning approach (MLA) is an effective approach for teaching English grammar and for enhancing students' attitude and performance. It was also concluded that MLA is an approach that fully integrates students into English grammar because it allows students to comprehend and mastery in the application of grammar item or component before moving to the next.

Recommendations

Based on the findings, the study therefore recommended that:

1. English Language teachers should adopt the use of mastery learning approach (MLA) to enhance students' attitude and performance in English grammar.

2. The government through its relevant agencies such as State Ministry of Education should sponsor and organise workshops on innovative approaches for teaching English and other subjects such as mastery learning approach.
3. Teacher educational programmes at universities and National Colleges of Education (NCE) and National Teacher Institute (NTI) should incorporate innovative strategies and approaches such as mastery learning approach into the teacher education programme at all levels.

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