Comparative Effectiveness of Mastery Learning and Expository Approaches in the Teaching of English Language in Nigerian Secondary Schools

Nnenna Nmai-Juba1, Prof. Mkpa Agu Mkpa2, Prof. Rock Eze3
1International Secondary School, Abia State University Uturu, Nigeria
2,3Faculty of Education, Abia State University, Uturu, Nigeria

Abstract: This study which adopted the quasi-experimental research design sought to determine if secondary school students taught some units of English language using the Mastery Learning Strategy (MLS) would perform significantly better than their counterparts taught the same lessons using the expository instructional approach. Three research questions and three hypotheses were formulated to guide the study. Data were collected using a 25-item pretest, and a 25-item post-test which also served as a retention test and had a reliability index of 0.85 by Pearson Product Moment Correlation Coefficient Statistic. The Subjects were 140 senior Secondary students purposively drawn from a population of 1257 in the Local Government Area of Study. The 4 teachers received orientation two, each on the use of MLS and the expository methods as embodied in the lesson plans developed and validated for the study. After the 4 week of experimental treatment data were collected on the achievement test while the data for retention were collected 3 weeks later.

For the research questions, means and standard deviations were used to analyze the data while Analysis of Covariance was used to analyze the data on the hypotheses. The study revealed that the experimental group taught using MLS performed significantly better than the control group both in achievement and retention. The female students scored higher than the males in the experimental group. The implications of the study were highlighted.

Keywords: Mastery Learning Strategy, Expository Method, Academic Performance.

I. INTRODUCTION

Mastery learning Strategy (MLS) refers to a category of instructional methods which establish a level of achievement that all students must master before moving on to the next unit. The focus is on the role of feedback in learning (Kaheem, 2008). It is a set of groups-based or individualized teaching and learning strategies anchored on the premise that students will achieve a high level of understanding in a given domain if they are given enough time (Block, 2009). It utilizes differentiated and individualized instruction, progress monitoring formative assessment and most importantly, feedback corrective procedure and instructional alignment to minimize achievement gaps (Dembele 2005).

According to Zimmerman and Diberrederto (2008), mastery learning strategy enables students to collaborate with colleagues. This entails that students are equipped to function on their own without being helped by the teacher or students, and also able to work in groups in an active learning scenario. The strategy is based on the model of for mastery propounded by Bloom (1971) which emphasizes differentiated instructional practices as strategies to increase students’ achievement. Drawing from the principles of effective tutoring practices and learning strategies, mastery learning uses feedback, corrective procedure and classroom assessment to inform instruction. Rather than focusing on changing content, this strategy endeavors to improve the process of mastering it (Filgona, Filgona and Linus, 2017)

Teachers in the mastery learning classroom follow a scope and sequence of concepts and skills in instructional units. After an initial instruction, teachers administer a brief formative assessment based on the unit’s learning goals. The assessment gives students information or feedback which helps identify what they have learned well to that point (diagnostic) and which they need to learn better (prescriptive). Students who have learnt the concepts continue their learning experiences and enrichment activities such as special projects, academic games or problem solving tasks. Those who have not learnt or mastered the concepts go through corrective procedures until the concepts are mastered. The feedback and corrective activities offer guidance and direction on how to remedy their learning challenges. (Smith and Frank, 2017).

In the light of the procedure for MLS, Chime (2002) and Yusuf (2009) opine that MLS enables students grasps and consolidate new concepts as well as participate actively in group tasks yet acting as individuals.

Some studies have investigated the effectiveness of mastery learning in facilitating students learning in some school subjects. Lubna and Arshad (2017) investigated the effect of mastery learning on student achievement retention in secondary school mathematics in Pakistan. The results using mastery learning approach performed significantly better both in the achievement and retention test that followed the experimental; treatment.
Similar results were obtained by Filagona and Sababa (2017) who investigated the effectiveness of the MLS in the study of various subjects. A study by Mayanchi, Anya and Kainuwa (2017) on the effects of MLS and problem solving methods of teaching on students’ achievement in mathematics in Zamfara State of Nigeria concluded that the experimental group (the MLS and problem solving group) performed significantly better than the control group taught using traditional expository method. Similar results were obtained in the studies by Remjai, Martin and Romio (2019) Guskey (2007) and Wambugu and Changeiwo (2008) when they concluded that mastery learning approach and self-regulated learning strategy increase student’s academic achievement and achievement across their learning abilities towards the subject of biology. Studies by Harold and Sebastin (2018) Jegede, Alaiyemola and Okebukola (2009) both lent support to the effectiveness of the MLS as an instructional strategy and therefore the authors advise our teachers to adopt the strategy in their classrooms.

The expository / traditional / conventional methods are the teacher centered patterns whereby in the classroom, the teacher doubles up as the sole owner of the space and his students are left with the duty of listening while being quiet. This mode of teaching schedules time for teaching and learning. Eric-Mawauenyega and Otubuko (2017) raise the question as to whether learning must necessarily take place in that scheduled time given that students, as individuals, might have their individual differences and capabilities as well as learning patterns.

The expository method which is synonymous with the traditional or conventional method adopts the lecture approach and a bit of discussion, while the problem solving element is presented by and/ or discussed with the instructor. The syllabus, the teaching materials and the students assignments are determined by the tutor and transmitted to the students in various lessons/lectures (Cottel and Mills, 2003). This scenario could limit the abilities of learners to learn effectively if their characteristics such as age, social background, and abilities and so on cannot be used in determining what they are being taught.

This traditional approach involves the direct flow of information from teacher as sage to students as receptacle. The effectiveness of that transmission is tested by posing various exercises to the students. The students in most cases are given take-home assignments. Some still return the next day with the hope of copying other peoples’/students’ work, as such inhibiting the teaching and learning process. (Dereck 2006). This scenario makes it appropriate that problem-based techniques are employed by schools and teachers if really they want learning to occur. Kayode (2014) observes that the expository teaching approach could hinder successful impartation of knowledge because students are restricted from active participation in the teaching-learning process unless the teacher permits them to do so. In most cases the students’ task is to copy the teachers’ notes which activity does not guarantee effective learning.

Expository methods (Chalk and talk) rely mainly on textbooks while the modern methods rely on hands-on materials approach. The traditional methods display materials in part and try to explain as a whole whereas the reverse is the case with the modern approaches Mapeso (2017) asserts that though the expository method has long been used in teaching and learning situations, however, it is no longer effective enough to address the students’ needs and interests as they do not have the opportunities to collaborate.

1.1 The Problem

English language remains about the most important subject in the Nigerian school curriculum because all school subjects, including the local languages are taught in English. The West African Examination Council and other Examination Bodies expect a candidate to possess a credit-level pass along in with four other subjects before the person is certified to have passed the examination satisfactorily. In fact, if a candidate fails to score a credit level pass in English language, the person cannot be admitted into any Nigerian university for an undergraduate or postgraduate programme in any discipline including local languages. Yet English language and mathematics are two subjects in which the worst performances are recorded in the external examinations in Nigeria.

Research efforts should therefore continue to be made to find ways of improving Nigerian students’ performances in English language. This study addresses the issue and seeks to answer the question. Will the use of mastery learning strategy enhance students’ academic achievement and retention in secondary school English language.

1.2 Purpose of the Study

The study sought to determine the effectiveness of the mastery learning strategy in improving the academic achievement and retention in senior secondary school English language in Abia State Nigeria. More specifically, the study sought to:

Establish the difference in students’ achievement in English language when taught using mastery learning strategy as against the expository method.

Ascertain the difference in students’ retention ability in English language when taught using the mastery learning strategy as against the expository method; and

Ascertain the difference in students’ achievement in English language when taught using mastery learning strategy based on gender.

1.3 Research Questions

The following research questions were posed to guide the study.
1. What difference exists in students’ achievement in English language when taught using mastery learning strategy as against the expository method?

2. What difference exist in students’ retention ability in English language when taught using the mastery learning strategy as against the expository teaching method?

3. What difference exists in male and female students’ achievement in English language when taught using the mastery learning strategy?

1.4 Hypotheses

The following null hypotheses were formulated to guide the study:

1. There will be no significant difference in the academic performance of the experimental group taught using the mastery learning strategy, and the control group taught using expository method as measured by their mean achievement test scores.

2. There will be no significant differences in the retention ability of the experimental group taught using the mastery learning strategy and the control group taught by the expository method as measured by their mean retention test scores.

3. There will be no significant difference in the academic achievement of male and female students taught using the mastery learning strategy as measured by their mean achievement test scores.

II. METHODOLOGY

In this section, we describe the research design, subjects used for the study, instruments, procedure, for data collection and analysis.

The study was a quasi-experimental design of the pretest-posttest control group type.

This involves the administration of a pretest to the experimental (E) and control (C) groups followed by the experimental treatment n the MLS group while the control group was taught using the expository method. After the treatment, an achievement test was administered to both E and C groups and their mean scores obtained.

After an interval of three weeks, the retention test was administered and the scores obtained and used for data analysis.

2.1 The Subjects

The population of the study consisted of 1257 senior secondary school students of three secondary schools in Ohafia, Abia State, Nigeria. This number was made up of 712 female and 545 male students. The sample for the study was purposively drawn from a co-educational public school and comprised a total of 140 students made up of 80 females and 60 males who had participated in the Basic Education Certificate Examination.

The sample of 140 students was constituted into 4 classes of 35 students in each. The four classes each had a teacher of English language all of whom were 2005-2007 graduates of Education/English from Abia State University, Uturu, Nigeria. Two teachers were randomly assigned to teach 2 of the classes as the experimental (MLS) group while the other two teachers and their two classes served as the control (Expository Method). All the teachers were females.

2.2 Instrumentation

The instruments used for the study included the pretest, the posttest and the retention test. The pretest consisted of a 25 item multiple-choice test constructed from the English Language content that all the students had studied in their Junior Secondary School 3 class. Since the students were from one school, it was certain that, using one curriculum, they had all covered those contents/subject matters. Using the table of specifications, we ensure that all the topics were covered and that all the cognitive levels were accommodated in appropriate proportions, bearing in mind the development status of the children/students. The students were informed ahead of time that they were going to be tested and so they all had equal opportunities to prepare for the pretest.

The test was conducted in collaboration with the classroom teachers who assisted in the project as research assistants.

The posttest which also served as the retention test except that in the retention test, the serial arrangements/0f the test items was reshuffled, consisted of 25 items covering the content taught the students in the 4 weeks of the experimental treatment. The specific topics taught the two groups included the following:

Week 1: Nouns- Pluralization

Week 2: Pronouns – Objective and Subjective

Week 3: Vocabulary Study – Synonym/Antonym.

Week 4: Verbs- Identification of Verbs

The 25 test items were generated from the topics prior to the commencement of the instructional procedure. The weeks 1, and 2 topics yielded 6 test items each while weeks 3 and 4 topics yielded 6 and 7 test items respectively, making a total of 25 items. Each test item was to score 4 points if correctly answered. Each test item had 4 answer options of which only one option as correct.

As in the case of the pretest, the posttest/retention test was constructed in collaboration with the classroom teachers who also served as the research assistants. In doing so, we applied the principles and guidelines for constructing good multiple test items.

The test was face and content validated by five professional colleagues in the Faculty of Education, Abia State University, three of whom are specialist in English Language teaching and two in measurement and evaluation. We also involved two teachers of English Language in two public secondary
schools not involved in the study. Their observations and comments guided the researchers in improving the quality of the test items in terms of relationship with the objectives of the lessons, appropriateness for the age of the students, adequacy of the number of test items, correctness of the responses, suitability of the distracters and the correctness of the statements of the tasks.

In order to establish the reliability of the posttest/retention test, the instrument was administered on 25 students twice in a different school not used for the study within the interval of 3 weeks. Their scores when correlated using Pearson Product Moment Correlation Coefficient statistics yielded an index of 0.85 which we considered sufficiently high.

2.3 Development of Lesson Plans

It was necessary to develop lesson plans to guide the teaching in teachers the experimental and control groups in order to clearly distinguish between the methodological differences between the MLS and Expository method groups.

As a result, the researchers in collaboration with the research assistants developed two variants of the lesson plan— one based on the Mastery Learning Strategy (MLS) and the other on the Expository instructional approach. Efforts were made to ensure that the lesson plan were based on the objectives and content/subject matter of the topics meant for the weeks in the school curriculum. Everything that ought to exist in a lesson plan was included in both lesson plans for the experimental and control groups. The only difference was in the instructional procedure in which the MLS differed from the expository/lecture method.

The lesson plans were eight in number with four reflecting the MLS and the other four adopting the expository approach. Each lesson plan contained the topic for each week; each of the plans having a double period of 120 minutes. The lesson plans were validated along with the posttest by specialists in the Faculty of Education, Abia State University, Uturu who taught the courses in Methodology in the Teaching of School Subjects.

2.4 Training the Research Assistants

Four class teachers of English Language were used as the research assistants. They were female graduates of the Faculty of Education, Abia State University, Uturu, Nigeria, so the concepts of mastery learning and expository teaching were not new to them. It was therefore easy to train them in the use of the methods. In fact the expository method was the major procedure that the teachers in the school system had been using. There was therefore very little to teach on that, except the need to adhere strictly to the lesson objectives, maintaining the correct time schedule in order to work within the approved time-table.

For the MLS teacher, it was necessary to do the following in the course of giving them the orientation:

i. Discuss the course of Mastery Learning Strategy (MLS)

ii. Explain the procedure which includes the following:
   - Assess students in the light of the lesson objectives to determine what they know and do not know.
   - Teach and present learning experiences that will help the students achieve the objectives completely.
   - Assess again to guarantee complete mastery.
   - Test again and teach for the attainment of the next objectives of the lesson, ensuring that the objective has been fully mastered.
   - Continue until all the objectives are fully mastered and so achieved.
   - Employ all needed strategies, instructional materials resources to effect the desired mastery of the learning.

iii. Illustrate or demonstrate the procedure for implementing the MLS for the research assistants to understand, using an example from the syllabus.

iv. Request the research assistant to try out the mastery learning procedure in a simulated teaching learning environment – not with the students who would participate in the study.

v. Correct the research assistants when they go wrong or make mistakes. Provide needed professional support until the desired level of performance has been attained by the research assistants.

2.5 Experimental Procedure

Permission was obtained from the school principal of the secondary school used for the study for her school staff and students to participate in the research. The four female teachers of English Language were given orientation on the procedure for the mastery learning strategy and the expository method using the prepared lesson plans to ensure that they adhered strictly to the procedure in terms of time keeping/duration of lessons, teaching the same topics and the performances of the teachers’ and students’ activities.

It was ensured that the only difference between the two groups was the instructional strategy adopted by the teachers in each case. Students were advised to remain in their own classrooms during English language lessons for the four-week period of the experimental treatment.

The researchers monitored the activities and progress of the experimental treatment during the study to ensure that the teachers of both the control and experimental groups carried on in line with the lesson plans. Additionally, the researchers ensured that there were controls against the possible contamination by extraneous variables such as Hawthorne effect, experimenters bias, test instrument effect and same environmental conditions such that no group had any advantage over the other. The retention test was administered
to the two groups three weeks after the achievement test and the data collected.

The pretest, post test and retention test results were used to analyze the data related to the research questions and the hypotheses. Means and standard deviations scores were used to analyze data related to the research questions while Analysis of Covariance (ANCOVA) was used to analyze the data related to the hypotheses.

III. RESULTS

Results of the data analyses are presented below on the research question posed and hypotheses formulated for the study.

3.1 Research Question One

What difference exists in students’ achievement in English language when taught using the Mastery Learning Strategy as against the expository teaching method?

Table 1: Mean and Standard Deviation of Student Achievement Based on Teaching Technique

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest N</th>
<th>x1</th>
<th>SD</th>
<th>Post test x2</th>
<th>SD</th>
<th>Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML</td>
<td>70</td>
<td>54.37</td>
<td>5.24</td>
<td>62.47</td>
<td>4.94</td>
<td>8.1</td>
</tr>
<tr>
<td>ET</td>
<td>70</td>
<td>49.73</td>
<td>3.47</td>
<td>54.71</td>
<td>4.78</td>
<td>4.98</td>
</tr>
<tr>
<td>TOTAL</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X1 means scores before the test, x2=mean scores after the test
ML=Mastery Learning; ET=Expository Teaching.

Table 1 shows that those taught with mastery learning strategy had mean scores of 54.37 and 62.47 in the pretest and posttest respectively. These give a mean difference of 8.1. those students taught with the conventional or expository mode of teaching had mean scores of 49.73 and 54.71 in the pretest and posttest respectively, thus, resulting in a mean difference of 4.98, a comparison of these differences shows that those taught using mastery learning strategy had a higher mean difference (8.17) than those taught using conventional teaching method with mean difference of (4.98), this indicates that students taught using the mastery learning strategy performed better than those taught using conventional teaching method. However, the test of the related hypotheses will established if the difference is satisfactorily significant.

3.2 Research Question two

What difference exists in students’ retention ability in English language when taught with mastery learning strategy s against the conventional expository teaching method?

Table 2: Mean and Standard Deviation Of Students Retention Ability In Experimental And Control Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest N</th>
<th>X1</th>
<th>SD</th>
<th>Retention test X2</th>
<th>SD</th>
<th>Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML</td>
<td>70</td>
<td>62.47</td>
<td>4.94</td>
<td>73.21</td>
<td>8.26</td>
<td>10.74</td>
</tr>
<tr>
<td>ET</td>
<td>70</td>
<td>54.71</td>
<td>4.78</td>
<td>59.87</td>
<td>6.78</td>
<td>5.16</td>
</tr>
<tr>
<td>TOTAL</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

x1 means posttest mean score, x2=mean retention mean test scores
ML=Mastery Learning; ET=Expository Teaching.

Table 2 shows that those taught with the mastery learning strategy had mean score 62.47 and 73.21 in posttest and retention respectively. These give a mean difference of 10. 74. Those students taught with the conventional or expository mode of teaching had mean scores of 54.71 and 59.87 in posttest and respectively, thus resulting in mean difference of 5.16. a comparison of these difference shows that those taught using mastery learning strategy had a higher mean difference (10.74) than those taught using conventional or expository teaching method with mean difference of (5.16), this indicates that students taught using mastery learning strategy had a higher retention ability than those taught using conventional or expository teaching method. The test of the hypothesis will establish if the difference is satisfactorily significant.

3.3 Research Question three

1. What difference exists in male and female students’ achievement in English language when taught using the mastery learning strategy?
Table 3: Gender Difference in Achievement in Mastery Learning Class

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest N</th>
<th>X1</th>
<th>SD</th>
<th>Posttest X2</th>
<th>SD</th>
<th>Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ma</td>
<td>31</td>
<td>58.78</td>
<td>8.74</td>
<td>61.42</td>
<td>8.01</td>
<td>2.27</td>
</tr>
<tr>
<td>Fm</td>
<td>39</td>
<td>61.08</td>
<td>7.03</td>
<td>63.07</td>
<td>9.11</td>
<td>1.99</td>
</tr>
<tr>
<td>TOTAL</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

x1 = mean scores before the test, x2 = mean scores after the test

ML = Mastery Learning; ET = Expository Teaching.

Table 3 revealed that male students taught using the mastery learning strategy had mean scores of 58.74 and 61.42 in the pretest and posttest respectively, meanwhile this gives a mean difference of 2.27. Furthermore, the female students taught in the same class using the mastery learning strategy had mean scores of 61.08 and 63.07 in the pretest and posttest scores respectively, which in turn gives a mean difference of 1.99. A comparison of the two groups mean differences showed that female students had higher mean than their male counterparts in both the pretest and posttest scores. This therefore implies that female students performed better than the males in a mastery learning class in English language. The hypothesis test will establish if the difference is satisfactorily significant.

3.4 Hypothesis One

There will be no significant difference in the academic performance of the experimental group taught using the mastery learning strategy, and the control group taught using expository method as measured by their mean achievement test scores.

Table 4: Analysis of Covariance (ANCOVA) of Students' Achievement in English language in a Mastery Learning Classes

<table>
<thead>
<tr>
<th>Sources</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean</th>
<th>F-Cal</th>
<th>F-Crit</th>
<th>Decision at P&lt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>8347.49*</td>
<td>2</td>
<td>4173</td>
<td>33.68</td>
<td>3.07</td>
<td>*</td>
</tr>
<tr>
<td>Intercept</td>
<td>30322.13</td>
<td>1</td>
<td>30322.13</td>
<td>244.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>2681.69</td>
<td>1</td>
<td>2681.69</td>
<td>21.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>5578.06</td>
<td>1</td>
<td>5576.06</td>
<td>45.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>44231.28</td>
<td>68</td>
<td>123.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total corrected</td>
<td>115382.00</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>525.78.77</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at 0.05 alpha value

Result in table 4 revealed the main effect is significant at 0.05 alpha level because the calculated F-value of 45.02 is greater than the critical F-value of 3.07, with 2 and 137 degrees of freedom. Therefore, the null hypothesis which stated earlier that there is no significant difference in students’ achievement in English language when taught using mastery learning strategy as against the conventional teaching is rejected. Hence, the alternate hypothesis which states that there is a significant difference in students’ Achievement in English language when taught using mastery learning strategies is upheld.

3.5 Hypothesis Two

1. There will be no significant differences in the retention ability of the experimental group taught using the mastery learning strategy and the control group taught using the expository method as measured by their mean retention test scores.

Table 5: Analysis of Covariance (ANCOVA) of Students Retention in English language in a Mastery Learning Class as Against Expository Classes

<table>
<thead>
<tr>
<th>Sources</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean</th>
<th>F-Cal</th>
<th>F-Crit</th>
<th>Decision at P&lt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>8347.49*</td>
<td>2</td>
<td>4037</td>
<td>3.54</td>
<td>2.12</td>
<td>*</td>
</tr>
<tr>
<td>Intercept</td>
<td>30322.13</td>
<td>1</td>
<td>23222.37</td>
<td>24.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>2647.59</td>
<td>1</td>
<td>1881.14</td>
<td>21.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>59634.06</td>
<td>1</td>
<td>4812.36</td>
<td>18.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>43697.37</td>
<td>68</td>
<td>123.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total corrected</td>
<td>116823.00</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43129.69</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at 0.05 alpha value
Results in table 4.5 revealed that the main effect is significant at 0.05 alpha level because the calculated F-value of 3.54 is greater than the critical F-Value of 2.12, with 2 and 137 degrees of freedom. Therefore, the null hypothesis which stated earlier that there is no significant difference between those taught with mastery learning strategy and expository learning strategy in retention abilities in English language class is rejected. Hence, the alternative hypothesis which states that, there is a significant difference between students taught with mastery learning strategy and expository learning strategy in retention abilities in English language was upheld. The result reveals that students taught with mastery learning strategy retained better than students taught in the expository learning settings.

3.6 Hypothesis Three

1. There will be no significant difference in the academic achievement of male and female students taught using the mastery learning strategy as measured by their mean achievement test scores.

The findings of the study may be summarized as follows:

- Students taught with mastery learning strategy performed better than those taught with the expository teaching method.
- Students taught using the mastery learning strategy had a better retention ability than those taught with the expository teaching method.
- Female students taught through MLS scored significantly higher in achievement than their male counterparts.

IV. DISCUSSION

The result of the study revealed that there is significant difference between students taught English language using the mastery learning strategy and expository teaching method.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean</th>
<th>F-Cal</th>
<th>F-Crit</th>
<th>Decision at P&lt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>1464.86*</td>
<td>2</td>
<td>732.43</td>
<td>8.29</td>
<td>3.07</td>
<td>*</td>
</tr>
<tr>
<td>Intercept</td>
<td>1363.48</td>
<td>1</td>
<td>1363.48</td>
<td>154.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>1415.90</td>
<td>1</td>
<td>1415.90</td>
<td>16.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>22.36</td>
<td>1</td>
<td>22.36</td>
<td>16.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>13862.58</td>
<td>67</td>
<td>88.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total corrected</td>
<td>286179.00</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15327.44</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at 0.05 alpha value

Since the calculated f (8.29) is greater than the critical f-value (3.07), the null hypothesis was therefore rejected. From the group means, the female had 61.08 with a standard deviation of 7.03, while the male had a mean of 58.74 with a standard deviation of 8.74, although the means gave a difference of 2.34 between the females and the males. This difference in mean was statistically significant at 0.05 alpha level of significance, hence the rejection of the null hypothesis.

However, the significant difference *=significant at 0.05 alpha value

That females performed and achieved better than males in the school under study.

3.7 Summary of Findings

The findings of the study may be summarized as follows:

- Students taught with mastery learning strategy performed better than those taught with the expository teaching method.
- Students taught using the mastery learning strategy had a better retention ability than those taught with the expository teaching method.
- Female students taught through MLS scored significantly higher in achievement than their male counterparts.

The researchers found that students taught using the mastery learning strategy performed better than students taught with conventional expository method. This difference could be attributed to the fact that students in the MLS class were allowed to collaborate amongst themselves to share knowledge and ideas, actively participating in the lessons. Also, graphical and pictorial teaching came to terms with previous knowledge, thus enabling students get through with task one after another, that’s a step by step technique. Furthermore, MLS students’ learning was reinforced by the contributions made by their colleague in the class which must have made them perform better. The result of this study is in agreement with earlier findings by Nwachukwu (2014) that the mastery learning strategy helps to improve students achievement in the class and that students taught using mastery learning easily assimilate what has been taught by their teachers. This could be explained by the fact that mastery learning strategy allows students input and full participation in the learning process unlike the expository where learner participation might be restricted. The mastery learning strategy ensures that students are able to collaborate among themselves and as such improve their achievement.

The findings further showed that there was a significant difference in student’s retention ability in English language when taught with Mastery Learning Strategy. Students taught using mastery learning strategy demonstrated higher retention ability than student taught using the expository strategies in English language. This could be attributed to the teachers’ disposition in approach with respect to both strategies. While mastery learning gives more experiences which make it easy
to recall, the expository method is in most teaching sessions abstract. The result of this study agrees with the earlier findings by Danjuma and Usman (2013) who observed that mastery learning increases retention ability. It could be said that retention is dependent upon achievement and whatever is recalled is determined by what the individual has learnt. The study also revealed that there was a significant difference in students’ achievement in English language when taught with mastery learning strategy based on gender. Female student performed better than the male student. in the mastery learning class. The result of study is not in agreement with the findings of Nzewi (2011) which showed that mastery learning strategy enhances students’ attribute and gender roles may not be a strong predictor of students performance in school subjects. Furthermore, Emelike and Grant, (2017) found that gender has no impact on the abilities of students to learn in a mastery learning class and also that mastery strategy enhances the abilities of students to learn. It could be suggested that some male student do not take their studies as seriously as their female counterparts when they are being taught by female teachers. This may account for the superiority of the performance of the female student in the study. Given the discrepancies in the findings there is need for further studies on the mastery learning strategy. There could be some features peculiar to the males and/ or females in the experimental subjects which further studies would have to unveil.

V. CONCLUSION

The study has shown that mastery learning strategy is an effective means of achieving improved learning and retention over and above the expository method of teaching secondary school English language. We believe that the teachers’ competence is a very significant factor in determining success in the application of the MLS. Thus, if the teacher is unable to implement the strategy, then the expected results are unlikely to be realized. It is therefore necessary to reorientate our teachers through both pre-service and in-services training experiences on the MLS, its benefits and procedure for its implementation.

Our experience in the course of the study was that effective teaching through MLS required more time to implement than the expository approach. The implication is therefore that teachers need to exercise greater time management skill in the use of the MLS than is necessary in the expository method.

We believe that more studies are needed to investigate other variables related to the use of the MLS. The present study saw the female students performing significantly better than the male in the use of the MLS. More studies may need to investigate the reasons for this difference, especially if the teacher’s gender is a factor.

Other school subjects need to be utilized in the study on order to find out if the nature of the subject could affect students’ performance in the use of mastery learning strategy.

REFERENCES

