GROUP BASED LEARNING AND ACADEMIC ACHIEVEMENT OF UPPER BASIC 2 STUDENTS’ IN PRE-VOCATIONAL STUDIES IN UMUAHIA NORTH LOCAL GOVERNMENT AREA OF ABIA STATE

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ABSTRACT

The study assessed the effect of Group based instructional strategy on upper basic two (junior secondary school two) students' achievement in Prevocational studies in Umuahia North Local Government of Abia State. The study adopted a quasi-experimental control design; specifically the pretest post-test non-equivalent control group design was used. Two research questions were posed, and one hypothesis formulated to guide the study which was carried out in a Government co-education school in Umuahia North Council Area in Umuahia Education Zone of Abia State. Eighty-seven (87) JSS two students were used for the study. The study is a quasi-experimental study which employed pretest posttest control design and a 2x2 factorial design. Instrument used for data collection was Prevocational Studies Achievement Test (PSAT) developed by the researchers. PSAT was validated by three experts and the reliability coefficient using Kuder Richardson (KR-20) was found to be 0.81. Mean and standard deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) statistics was used to test the hypothesis at 0.05 significance level. The result revealed a significant factor on students' achievement in Pre-vocational studies. Thus, it was confirmed that students taught Pre-vocational studies using Group based instructional strategy performed better than those taught using the lecture method. The result also revealed that gender was not a factor in achievement of students in Pre-vocational studies. It was recommended among other things that efforts should be made by curriculum experts to incorporate Group based instructional strategy, teaching strategy into the teaching of pre-vocational studies.

KEYWORDS: group-based learning, upper basic, academic achievement, pre-vocational studies

INTRODUCTION

Prevocational education is a planned programme of learning experiences that begin with exploration of career option supports for basic academic and life skills. It prepares learners for high academic standards, leadership, preparation for industry-defined work, advanced and continuing education. According to (Ndifereke & Okon, 2020) it facilitates the acquisition of practical and applied skills as well as basic scientific knowledge. Based on its role,
they are strategic subjects in basic education in Nigeria. Useni, Iweh and Okpo (2014) see prevocational education to mean that basic education given at the basic and upper basic schools like agricultural science and home economics for equipping learners with prevocational skills. Nuru (2007) indicated that changes in a country economy is required to prepare young people for the jobs of the future and prevocational education have important roles to play in this regard. Pre-vocational studies play a crucial role in the development of students and the progress of a nation. These studies provide students with valuable skills, knowledge, and practical experiences that are essential for their future careers. Pre-vocational studies focus on developing specific skills that are relevant to various industries and sectors. By providing students with hands-on training and practical experiences. These studies equip them with the necessary technical skills needed for specific vocations. This helps students to become job-ready and increases their employability, which in turn contributes to the overall economic growth and development of the nation. Pre-vocational subjects at the junior secondary school level are agricultural science and home economics. The specific objectives of introducing agricultural science as prevocational studies into basic education in FRN, (2007) are to stimulate and sustain children’s interest in agriculture and provide occupational entry level skills for children interested to advance in farming. And to advance food production through improvement of agricultural production techniques in children. It also includes providing occupational entry level skills in agriculture to the interested children and prepare them adequately for producing and marketing farm commodities efficiently and profitably. It is also to enable children acquire basic knowledge and practical skills required for future studies in agricultural field.

Home economics has over the years been essential part of general education because it provides a vital contribution to the school prevocational curriculum with its concern for the personal development of an individual, in the family and within the community. It comprises food and nutrition, clothing and textiles and home management. Its objectives are to develop a caring attitude to others by understanding their changing needs throughout their lives; develop personal and communal values in determining priorities for choices; foster an aesthetic sense and to stimulate ideas of creativity; establish a positive attitude towards consumers’ rights and responsibilities and protection for consumers; acquire the knowledge and to develop the skills required for organization and management of resources, (Ndifereke & Okon, 2020).

Since the introduction of prevocational subjects in secondary schools in Nigeria, efforts have been made by the school government to equip the schools with important laboratory and workshop equipment as well as providing them with more qualified and motivated teachers (Kyado & Fahewe, 2020). However, researchers have observed that students perform poorly in these pre-vocational subjects (Kyado & Fahewe, 2020 & Ndifereke & Okon, 2020). The resultant effect of this, is that students make wrong choices for vocational or technical qualification that is directly relevant to the labour market and their future endeavours.

The researchers are therefore interested to assess if the teaching method use in teaching vocational studies is among the factor that inhibit students’ academic achievement in vocational studies. Academic achievement refers to the level of success a student reaches in their educational pursuits. It can be measured through various means such as grades, test scores, class ranking, and other forms of assessment. Academic achievement reflects a student’s ability to understand and apply knowledge, skills, and concepts taught in an educational setting (Roorda, Koomen & Oort, 2021). Several factors contribute to academic achievement, including individual characteristics, family background, socioeconomic status, school environment, teaching methods, and educational policies but here our focus is on teaching method.

The teaching method commonly use in teaching vocational studies in Nigeria secondary schools is lecture method of teaching. While the lecture method is commonly used in teaching, including pre-vocational studies, it has several disadvantages that can impact the learning experience of learners.

The lecture method primarily involves one-way communication, where the teacher delivers information to the learners. This can lead to passive learning, where students become passive recipients of information without actively engaging in the learning process. This can limit their understanding, critical thinking, and
problem-solving abilities, as they are not actively involved in applying the concepts they are being taught. The lecture method may not cater for the needs of all students, as it typically relies on auditory and visual modes of instruction. Some learners may be more kinesthetic or tactile learners who benefit from hands-on experiences and practical demonstrations. By relying solely on lectures, these students may struggle to grasp concepts and develop the necessary skills for pre-vocational studies. In a lecture-based approach, it can be challenging for teachers to provide individualized feedback and assess students' understanding and progress effectively. Without regular opportunities for students to demonstrate their learning through discussions, presentations, or practical exercises, it becomes difficult for teachers to gauge their comprehension and identify areas that require further reinforcement. This can hinder the effectiveness of the teaching and learning process. Research suggests (Kyado, Achor & Fahewe, 2020 & Eke, 2018) that passive learning methods, such as lectures, may result in lower retention and transfer of knowledge compared to active learning approaches. Learners may quickly forget the information presented in a lecture, particularly if they do not have opportunities to apply and practice what they have learned. Pre-vocational studies often require practical skills and real-world application, which may not be effectively addressed through a lecture-based approach alone. Lectures are typically delivered to a large group of students simultaneously. This restricts the opportunities for individualized instruction, as teachers may find it challenging to address the unique needs, interests, and learning pace of each student. Some learners may require additional support, guidance, or extension activities, which are difficult to provide in a lecture setting. This can result in students feeling left behind or unchallenged, impacting their overall learning experience.

To mitigate the disadvantages of the lecture method, it is beneficial to incorporate active learning strategies, such as group discussions, hands-on activities, case studies, projects, and practical exercises. These methods encourage active student engagement, foster critical thinking and problem-solving skills, and enhance the application of knowledge in real-world contexts. By combining various teaching strategies, educators can create a more inclusive and effective learning environment for pre-vocational studies, and this is what group-based learning comprises.

Group-Based learning is a teaching learning approach that stresses that under adequate and suitable teaching settings, all learners can practically learn most of what is taught in schools (Aggarwal, 2004). The GBL is based on the tenet that every learner is capable of gaining mastery of learned objectives, if the teaching instruction is approached methodically. That is if learners are helped when and where they have learning difficulties. And if they are given sufficient time to achieve mastery and a clear-cut criteria of what constitute mastery is made known to them. According to (Bloom, 2007), most students can master what the teachers teach them if the teaching is systematically manipulated. The instructional variables can be easily manipulated so that almost all learners achieve the prescribed level of mastery. Studies by (Block & Anderson, 2005), indicate that in many subject areas, all learners can achieve some defined level of mastery. It has been found that even gifted students need individual methods of study suited to their personality, rather than the conventional teaching methods (Kyado; achor & Fahewe, 2020).

Group-based teaching strategies in pre-vocational studies can offer numerous benefits to learners. Group-based teaching strategies encourage active participation and engagement among learners. Working in groups promotes collaboration, discussion, and interaction among students. It provides an opportunity for students to share ideas, ask questions, and actively contribute to the learning process. This active engagement enhances understanding, critical thinking, and problem-solving skills. Pre-vocational studies often require students to work in teams and collaborate with others in the workplace. Group-based teaching strategies foster the development of teamwork and communication skills, which are essential for vocational success. Through group activities, learners can practice effective communication, negotiation, and conflict resolution, preparing them for future work environments.

Working in groups allows students to interact with peers who may have different backgrounds, experiences, and perspectives. This exposure to diverse perspectives promotes cultural sensitivity,
empathy, and open-mindedness. It broadens learners’ horizons and prepares them for the multi-cultural and diverse workplace they may encounter in their future vocational pursuits. Group-based activities often involve solving complex problems, analyzing case studies, or engaging in practical exercises. These activities challenge students to think critically, apply their knowledge, and develop problem-solving skills. By collaborating with peers, students can gain different insights, approaches, and solutions, leading to deeper learning and improved decision-making abilities.

Group-based teaching strategies facilitate peer learning and support. Students can learn from one another, share their strengths, and support each other’s learning. Through peer discussions and interactions, students can clarify concepts, provide feedback, and reinforce their understanding. This collaborative learning environment can boost confidence, motivation, and a sense of belonging among learners. Many pre-vocational studies require practical skills development. Group-based teaching strategies offer opportunities for hands-on activities and simulations, allowing students to apply theoretical knowledge in practical contexts. This hands-on experience enhances skill acquisition, problem-solving abilities, and vocational readiness. Group-based learning promotes active engagement and interaction, which can lead to improved retention and transfer of knowledge. Students have the opportunity to discuss and explain concepts to their peers, reinforcing their understanding and memory retention. Furthermore, by applying knowledge in group activities, students can better connect theoretical concepts to real-world scenarios, enhancing their ability to transfer knowledge to practical situations. By incorporating group-based teaching strategies, educators can create a dynamic and effective learning environment that prepares students for success in their vocational pursuits. Research in Group-Based Learning (GBL), (Guskey, & Gates, 2006) indicate that group learning approach does enhance students’ academic achievement in science (Achor and Gbadamosi, 2020). Consequently, if systematically practised, GBL model could be of immense help to teachers and administrators in arresting the decline in learners’ achievement in vocational studies. There are two approaches employed under GBL. These are Group-Based Learning (GBL) and Personalized System Instruction (PSI). In GBL approach the subject matter is verbally presented while in PSI approach it is presented in a written form, (Bloom, 2007). In both approaches the contents, is divided into small units with specific objectives and arranged in hierarchical order of complexity (Keller, 2007). In finding out the effects of GBL on students’ motivation and achievement in this study, GBL was used and the learners who attained the required mastery level were allowed to proceed to the subsequent unit of the topic selected while those who fail to reach the required level of proficiency were given extra tuition. The required level of knowledge proficiency and competence was assessed through formative tests, feedback, remediation, and finally summative tests (Bloom, 2007, Kulik, & Bangert-Drowns, 2000). The GBL approach relies on setting standards of group and excellence, followed by a strategy to bring as many students as possible to this standard. In this way students are informed of the performance required but are not in competition for grades. They are to be judged based on levels of group obtained by students in the previous year. This enables a more cooperative approach; students helping each other without the fear that special advantage is being given to those who are being assisted (Kulik & Bangert-Drowns, 2000).

The principles of Group-Based Learning include matching teaching to student outcomes, utilizing multiple instructional methods, giving specific feedback, and fostering correctives and extensions. Effective teachers intentionally engage their students in the multiple cognitive levels of thinking described in Bloom’s Cognitive Taxonomy: knowledge, comprehension, application, analysis, synthesis, evaluation, creative and complex thinking (Kulik, J.A. & Bangert-Drowns, 2000).

The planning phase of the instructional process addresses identification of the learning, a task analysis, prerequisite skills, and development of effective questions, strategies, and materials. In the teaching phase, the Cue Set is a step designed to focus student attention and ignite motivation for the learning task. Best Shot is a term which describes teacher’s behaviour which models or beams instruction to students (Bloom, 2007). It centres on a variety of strategies which empower the teacher to instruct through multiple
learning modalities hence stimulus variation which is an essential component for active learning is attained. Guided and Independent Practice activities are opportunities for students to actively participate, apply the learning, and experience success. Closure ties together the learning, instructional activities, and expectations in a meaningful summary (Kulik, 2000). Bloom found that students do attempt to work on their difficulties if they are given specific suggestions of what to do. The best procedure identified was to have small groups of students (two or three) meet regularly for up to an hour each week to review the results of formative tests and to help each other overcome difficulties. This in turn results in a hybrid of cooperative and mastery learning approaches hence the GBL.

Ryan & Schmidt (2009) identified the most successful corrective strategies as being those which include objectives plus a problem testing the objectives of the previous lesson, discussion of the problem, specific prescriptions for using the text, class notes and handouts, and alternative resources, such as texts, workbooks, games, and kits. When correctives consisted of objectives or problems only their effectiveness was considerably diminished.

The goal of GBLM is to have all students learn instructional material at roughly equivalent, high levels. Instructors who use cooperative mastery learning break down course material into manageable units and create formative tests for students to take on each of the units. In their review of mastery learning programs, Bloom in Kulik, & Bangert-Drowns, 2000) cited Bloom formulation as the classic approach. In Bloom's model, students receive individualized instruction as necessary so that they all master course material. The basic approach reduces variation in final student performance through instruction suited to all students' needs. This combination of strategies is a good example of attacking (Bloom, 2007) two-sigma problem by integrating principles that focus on different aspects of learning. Through this process of formative classroom assessment, combined with the systematic correction of individual learning difficulties, Bloom believed all students could be provided with a more appropriate quality of instruction than is possible under more conventional approaches to teaching. As a result, nearly all might be expected to learn well and truly master the unit concepts or learning goals (Bloom, 2007). This, in turn, would drastically reduce the variation in students' achievement levels, eliminate achievement gaps, and yield a distribution of achievement. The teaching and learning process is generally perceived to have three major components: feedback, corrective-enrichment process, and instructional alignment (Block & Anderson, 2005). To begin, there must be some idea about what we want students to learn and be able to do; that is, learning goals or standards. This is followed by instruction that, hopefully, results in competent learners-students who have learned well and whose competence can be assessed through some form of assessment or evaluation (Anderson, 2005).

Group-Based Learning adds the feedback and corrective component, allowing teachers to determine for whom their initial instruction was appropriate and for whom learning alternatives may be needed, Zembar and Blume (2011).

The poor performance of candidates in Prevocational studies as reflected in Junior Secondary School Examination (JSSE) results has continued to trigger a lot of concern among educationists and other stakeholders nationwide over the years. This poor performance in Prevocational studies among other factors is likely to undermine the attainment of the projected goals. A critical look at students' overall performance in Prevocational studies at JSSE national examinations results over some years backed revealed that it has persistently continued to decline. The teaching method is a crucial factor that may affect students’ learning outcomes.

Gender differences in academic performance have been a topic of extensive research. When it comes to the effect of group-based learning on academic achievement of upper basic 2 students in pre-vocational education, gender differences can be significant and may be influenced by various factors. According to a study by Hyde, Fennema, and Lamon (2021), gender differences in mathematics performance, a key component of pre-vocational education, have decreased over the years but still persist. This suggests that while overall gender disparities have reduced, differences might still be observable, especially in special academic areas such as mathematics within the context of pre-vocational education. In the study conducted by Smith and Johnson (2018), it was found that group-based learning
Interventions had a positive impact on closing the gender gap in academic achievement. The collaborative supportive nature of group learning environments helped create equal opportunities for male and female students to participate actively, thus minimizing gender differences in academic performance. It is based on the above that this study investigates the influence of gender as regarding students academic when exposed to group-based learning strategy in prevocational studies.

Gender disparity in achievement is compounded by use of traditional methods of teaching and the students' lack of motivation to learn Vocational studies. However, what is not known is how group-based learning model would affect students' learning outcomes. To address this issue, the present study assesses the effects of GBL on junior secondary school students' academic achievement in Prevocational studies in Abia State.

The following research questions were raised and answered in the study:

1. What is the differential effect of Group based learning instructional strategy and Lecture teaching method on Upper basic students' achievement in Prevocational studies?

2. What are the differences in male and female Upper basic2 students’ mean achievement scores when Group based learning instructional strategy is used in Prevocational studies?

**Hypothesis**

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

There is no significant difference between the mean achievement scores of students taught Prevocational studies using Group based learning instructional strategy and those taught using Traditional method of teaching.

**METHOD**

This study adopted pre-test, post-test, control group experimental design with a 2 x 2 factorial matrix to determine the effects of training in Group based learning strategy and lecture method on students’ academic achievement in Prevocational studies. The experimental group adopted Group based learning instructional strategy and the control group used the lecture method for teaching. The population of the study comprised all the Upper basic 2 (JSS2) students in all the Government owned co-educational Secondary schools in Abia State in the 2021/2022 academic session numbering 7,639 students (3,153 male and 4,486 female students) in Abia State (Abia State Secondary Education Management Board, 2023).

The Upper Basic Students of Ibeku High School was purposively sampled. Ibeku High School is one of the co-educational public secondary schools in Umahia Educational Zone. The sample of the study consist of 87 students comprising 43 students assigned to the experimental groups and 44 students assigned to the control group from the same school. The class for experimental group has 24 males and 20 females (Group based learning classroom) while the other class for control group has 21 males and 22 females. One instrument was used for data collection in the study. The Prevocational studies Achievement Test (PSAT) which consist of 30 multiple-choice questions. Two types of lesson plans: One for the experimental group using Group based learning instructional strategy and the other for control group using Traditional method of teaching strategy. The Pre-test Post-test achievements test items were based on the unit topics that consist of topics in Prevocational studies that was taught to the students.

The face and content validity were established for the Prevocational Studies Achievement Test (VSAT) Forms 1 and 11. To ensure the face validity of the Prevocational Studies Achievement Tests (PSAT), they were presented to two specialists in Measurement and Evaluation and Science Education from Michael Okpara University of Agriculture, and an expert in Vocational Studies from Alvan Ikoku Federal College of Education. The content validity of the Prevocational studies Achievement Test (PSAT) Forms 1and 11 were ensured using the test blueprints and item analysis. Thereafter, the test items generated were sent to experts in Curriculum Studies from Alvan Ikoku Federal College of Education, two experts in Measurement and Evaluation and one expert in Science education from Michael Okpara University of Agriculture, Umudike for comments and suggestions. The researchers in collaboration with some Upper basic 2 Vocational studies teachers developed a 30-item multiple-choice achievement test that was based on the topics to be taught on Vocational studies.
The reliability of the Prevocational Studies Achievement Test (PSAT) was 0.81. The instrument was subjected to trial testing. The Prevocational Studies Achievement Test (PSAT) instrument was administered to 30 students who were not sampled for the study. The scores obtained from the trial testing were subjected to Kuder-Richardson (KR-20) formular to determine the internal consistency of the Prevocational studies Achievement Test. The Kuder-Richardson (KR-20) was appropriate for determining the reliability of the Pre-vocational Studies Achievement Test because the instrument required only one correct answer in every case.

Table 1: Pre-test and post-test mean score and standard deviations scores of students in Prevocational studies achievement test due to exposure to Group based learning strategy and Lecture Method

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>Number of Students</th>
<th>Types of Test</th>
<th>Achievement Mean Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test</td>
<td>Post test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(\bar{X})</td>
<td>S.D</td>
</tr>
<tr>
<td>GBL Method</td>
<td>44</td>
<td>18.08</td>
<td>4.71</td>
</tr>
<tr>
<td>Lecture Method</td>
<td>43</td>
<td>17.95</td>
<td>4.33</td>
</tr>
</tbody>
</table>

The data presented on table 1 indicates that students taught using Group based learning instructional strategy had a mean achievement score of 18.08 and a standard deviation of 4.71 in the pre-test and a mean of 39.35 and a standard deviation of 6.33 in the post-test with a pre-test post-test gain of 21.27. The data also showed that students taught using the Lecture method had a mean score of 17.95 and a standard derivation of 4.33 in the pre-test and a mean score of 26.80 and a standard deviation of 4.33 in the post test, making a pre-test post-test gain to be 8.83. The findings reveal that students taught Prevocational studies with Group based learning instructional teaching strategy had a higher mean achievement gain score than those taught with Lecture method of teaching.

Table 2: Pre-test and post–test mean achievement score and standard deviation scores of students in Prevocational studies achievement test due to teaching methods and gender.

<table>
<thead>
<tr>
<th>Teaching method</th>
<th>Types of tests</th>
<th>Gender</th>
<th>Male Student</th>
<th>Achievement gain</th>
<th>Female Students</th>
<th>Achievement mean gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(\bar{X})</td>
<td>S.D</td>
<td>(\bar{X})</td>
<td>S.D</td>
</tr>
<tr>
<td>1. GBL</td>
<td>Pretest</td>
<td></td>
<td>24</td>
<td>17.08</td>
<td>5.31</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>24</td>
<td>37.65</td>
<td>6.22</td>
<td>20</td>
</tr>
<tr>
<td>2. Lecture</td>
<td>Pretest</td>
<td></td>
<td>21</td>
<td>16.67</td>
<td>4.28</td>
<td>22</td>
</tr>
<tr>
<td>method</td>
<td>Post-test</td>
<td></td>
<td>21</td>
<td>26.55</td>
<td>4.58</td>
<td>22</td>
</tr>
</tbody>
</table>
The data presented on Table 2 indicates that the male students in the GBL experimental group had a mean score of 17.08 and a standard deviation of 5.31 in the pre-test while in the post-test, the male scored a mean score of 37.65 and a standard deviation of 6.22, with achievement gain score of 20.57. The result also shows that the female students in the GBL experimental group had a mean score of 17.53 and a standard deviation of 4.52 in the pre-test of GBL experimental group which is higher than that of male students in the pre-test of GBL experimental group, while the female students also had a mean score of 38.09 and a standard deviation of 6.41 in the post-test of the experimental group with achievement mean score of 20.58 which is higher than that of the male students in the post-test score of the GBL experimental group.

The data presented on Table 2 also indicates that male students had a mean score of 16.67 and a standard deviation of 4.28 in the pre-test of the control group which was lower than the pre-test of the experimental group, while in the post-test, the male students had a mean score of 26.55 and a standard deviation of 4.58, with mean achievement gain of 9.88 which was lower than the experimental group. The result also shows that the female students had a mean score of 17.71 and a standard deviation of 4.81 in the pre-test of the control group which is higher than that of the male students score in the pre-test of the control group, while the female students had a mean score of 25.91 and a standard deviation of 5.01, with mean achievement gain of 8.20 which is higher than that of the male students in the post-test of the control group. This finding shows that statistically sex is not a significant factor in academic achievement of male and female students taught Pre-vocational studies with GBL and Lecture method though in every endeavour there is always gender perceptive.

**Hypothesis**

There is no significant difference in the mean achievement scores of students taught Prevocational studies using GBL teaching strategy and those taught using Lecture method.

Table 3: Analysis of covariance (ANCOVA) for Prevocational studies Test mean achievement scores of students when taught using GBL teaching strategy and lecture teaching method.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Type II sum of square</th>
<th>Df.</th>
<th>Mean sum of square</th>
<th>F.</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlated model</td>
<td>5952.991</td>
<td>2</td>
<td>2976.496</td>
<td>139.590</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>3674.011</td>
<td>1</td>
<td>3674.011</td>
<td>163.662</td>
<td>.000</td>
</tr>
<tr>
<td>Pre-test</td>
<td>408.541</td>
<td>1</td>
<td>408.541</td>
<td>18.199</td>
<td>.000</td>
</tr>
<tr>
<td>Teaching strategy/ method</td>
<td>4886.773</td>
<td>1</td>
<td>4886.773</td>
<td>517.685</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>1728.559</td>
<td>84</td>
<td>22.449</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>86684.000</td>
<td>87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>7681.550</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the ANCOVA analysis of the data collected from the posttest scores of students taught Prevocational studies using GBL strategy and those taught using Lecture method. From the analysis, $F (1, 84) = 517.685$, $p<0.05$. Hence, the null hypothesis was rejected. This means that there is a statistically significant difference between the mean academic achievement scores of students taught Pre-vocational studies using Group based learning strategy and lecture method of teaching in favour of those taught using GBL strategy. This further indicates that there was higher improvement in the academic achievement scores of the experimental group than students in the control group.

**DISCUSSION**

Result from Table 1 showed the effects of teaching methods on students’ achievement in Prevocational studies and that the mean achievement scores of the students in the experimental group were higher than that of the mean achievement scores of students in the control group. This result revealed that method was a significant factor on students’ achievement in Prevocational studies. Thus, it was confirmed that students taught Pre-vocational studies using Group based learning instructional strategy performed better than those taught using the lecture method. The findings of this study support...
the findings of previous studies (Guskey & Gates 2006; & Blocks & Anderson, 2005) that confirmed
that the use of effective teaching strategy leads to students’ improved achievement in Pre-
vocational science. This is because in using GBL strategy to teach learners Pre-vocational studies
there are instructional procedural process like identification of the learning, task analysis,
prerequisite skills, and development of effective questions, strategies, and materials, this
instructional procedure inherent in GBL help to reinforce learning and understanding to students.
Also, the data on Table 2 shows the effect of teaching methods and gender on students’
academic achievement in Prevocational studies. This finding shows that statistically sex is not a
significant factor in academic achievement of male and female students taught Prevocational
studies with GBL and Lecture method though in every endeavour, there is always gender
perceptive. This result is in line with the findings of Zembar and Blume (2011) and Achor and
Gbadamosi (2020) that revealed that there is no significant difference in science achievement
between males and females’ students.
Also, the data on Table 3, revealed that there was a significant difference in the academic
achievement means score of the students taught using GBL instructional strategy and those taught
using Lecture method. The result may be because in GBL teaching phase, like the Cue Set
is a step that focuses on students’ attention and ignite motivation for the learning task. Guided
and Independent Practice activities are also part of teaching skills inherent in GBL. These give
students opportunities to actively participate, apply the learning, and experience learning
success. This finding is in line with the result of Kulik, (2000) that GBL instructional strategy
method when used in teaching Vocational studies to students, enhances their academic
achievement better than lecture method of teaching through its instructional procedures
which include linking lesson closure with instructional expected outcome in a meaningful
summary.

CONCLUSION
This study was carried out to assess the effect of Group based learning instructional strategy on
upper basic two students’ academic achievement in Prevocational studies in Abia State. The result
of the study shows that students exposed to GBL instructional strategy had higher mean academic
achievement score gain than their peers exposed to lecture method of teaching. That is to say that
GBL enhances students’ academic achievement. This implies that GBL in Prevocational studies
enhances students’ academic achievement.

RECOMMENDATIONS
Based on the findings of the study, the following were recommended by the researchers:
1. In-service programme should be organized by relevant authorities for upper class teachers on
some innovative teaching methods like Group based learning instructional strategy that improve
students’ academic achievement.
2. There should be a review in the current instructional procedure to accommodate Group
based instructional strategy in upper basic teaching syllabus. This is to increase students’
academic interactivity and reduce the recurrent mass failure of students in Pre-vocational
studies.

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